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ABSTRACT

This report presents estimates of the distributions of perceptions of teachers and other school officials on selected behavioral characteristics of youths 12-17 years of age in the noninstitutional U.S. population by age and sex. These findings are based on questionnaire responses obtained from last schools attended by youths examined in the Health Examination Survey of 1966-70. A total of 6,867 youths were examined. Data are presented on various aspects of the behavior of in-school youths related to growth and development during the adolescent period, as seen by their teachers. In general, the responses suggest that adolescent girls appeared to be more successful than adolescent boys, particularly with respect to adjustment to the specific environment. This is consistent with the findings, based on measured performance in this survey, that girls had achieved higher scores on tests of school achievement even though boys showed higher scores on tests of intellectual development. (Author/PC)

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Data from the
NATIONAL HEALTH SURVEY

Series 11
Number 139

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Behavior Patterns In School

Of Youths 12-17 Years

United States

Teachers' ratings on the intellectual ability, academic performance, popularity, and emotional adjustment of adolescents in school presented by age and sex.

CG 009 604

DHEW Publication No. (HRA) 74-1621

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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National Center for Health Statistics

Rockville, Md. May 1974

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BEHAVIOR PATTERNS IN SCHOOL

OF YOUTHS 12-17 YEARS

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INTRODUCTION

Basic data on ratings by teachers and other school officials on behavior patterns in school of youths 12 through 17 years of age in the noninstitutional population of the United States are presented in this report by age and sex. Observations of teachers obtained in the Health Examination Survey of 1966-70 should provide some insight into the behavior of adolescents that is related to their growth and development and to their ability to function in an important life situation. A similar report on children 6-11 years of age in the U.S. population has been published.[1]

The Health Examination Survey is one of three major programs of the National Center for Health Statistics that conducts the National Health Survey as authorized in 1956 by the 84th Congress.[2] The Health Interview Survey, which obtains information by household interview among samples of persons, is concerned primarily with the impact of illness and disability on the lives and actions of people. The Division of Health Resources Statistics collects health data as well as health resource and utilization information through surveys of hospitals, nursing homes, other resident institutions, and various persons in health occupations.

In the Health Examination Survey (HES), data are collected through direct physical examination, tests, and measurements performed on the sample population selected for study. This approach is viewed as the most accurate way to obtain definite diagnostic data on the prevalence of certain medically defined illnesses. It is the most precise way to secure reliable information on unrecognized and undiagnosed conditions as well as on a variety of physical, physiological, and psychological measurements within the population. In addition, it makes possible the study of relationships among the various examination findings and between these findings and certain demographic and socioeconomic factors.

HES is carried out as a series of separate programs referred to as "cycles." Each cycle is concerned with some specific segment of the total U.S. population, usually a particular age group, and with certain specified aspects of the health of that segment of the population. In Cycle I, data were obtained on the prevalence of certain chronic diseases and on the distribution of various measurements and other characteristics in a defined adult population.[3,4] In Cycle II, a probability sample of the Nation's noninstitutionalized children 6-11 years of age was examined. The examination was directed primarily toward obtaining information on health factors related to growth and development; but it also included screening for selected diseases or abnormalities, an examination by a dentist, a battery of tests administered by a psychologist, and certain other measurements.[5]

Cycle III, on which this report is based, covered youths 12-17 years of age at the time of the survey. A comprehensive description of the survey plan, sample design, and examination content has been published.[6] Apart from age, the specifications of the program were similar to those of Cycle II. Its target was the roughly 23 million U.S. youths aged 12-17 years (married or single) living outside institutions. Field (collection) operations started in March 1966 and ended in March 1970. During that period, 6,768 persons (90 percent of the youths selected for the sample) were examined. The examination focused on health factors related to growth and development and included an examination of the eyes, ears, nose, and throat; a check for goiter; a musculoskeletal and neurological evaluation; a cardiovascular examination; a dental examination; and vision and hearing tests. Several tests were administered by a psychologist, and a variety of other tests, procedures, and measurements were made by technicians.

A standard single-visit examination was given each youth by the examining team in a mobile unit specially designed for the survey. Prior to the examination, information that included demographic and socioeconomic data on the household members was obtained from the parent or guardian of the youth. The parent also furnished a medical history and behavioral and related data on the youth to be examined. Supplementary and supporting information was obtained from the examinee. Data on grade placement and a teacher's ratings of intellectual ability, academic performance, behavior, and degree of adjustment to school were requested from the school last attended. A birth certificate and other information related to birth were also obtained for verification of the youth's age.

Statistical information on the target population, survey design, reliability of data, and sampling and measurement error are included in appendix I.

BEHAVIORAL DATA

Certain behavioral information related to the growth and development of youth was obtained in this survey from the parent, usually the mother, and from the school last attended. In addition, each youth was asked to complete and return a questionnaire on health habits and history when reporting for the examination. The youth was asked to complete another questionnaire, on health behavior, at the examination center. Portions of the parent's and the youth's questionnaires were designed to secure parallel views and attitudes from the youth and his parent concerning selected areas of health behavior.

Behavioral questions were included in the survey primarily to provide a means of relating information on health, behavior, attitudes, and other questionnaire data to specific medical examination findings and to the results of the psychological tests of intellectual development and school achievement. Another purpose was to provide a basis for comparing the expressed perceptions, attitudes, and values of the youth regarding a variety of topics (e.g., expectations concerning formal educational achievement, independence in decisionmaking, and standards of behavior) with those of their parents.

This report is limited to the information obtained on the questionnaire sent to the school. Responses were sought from teachers or others considered to have sufficient knowledge of the youth to give an adequate rating. In addition to providing data on grade placement, progress in school, attendance, and special educational services needed and used, the respondents rated the youth on intellectual ability, academic performance, popularity with peers, and emotional adjustment to school. The questions asked are shown in appendix II. The behavior patterns revealed by the responses to this questionnaire are believed to have considerable value per se as baseline data for describing teachers' perceptions of youth with respect to the areas covered.

FINDINGS

Coverage and Response

Ratings from schools were received for 92 percent of the youths 12-17 years of age who were examined in this survey. The proportion of nonresponse ranged from 5 percent for youths 12 years of age to 16 percent for those aged 17 years. The difference in response rate with

respect to age reflect the relatively large proportions of youths at the older ages who were not in school either because they had graduated from high school or because they had discontinued their schooling prior to graduation. The nature and effect of this nonresponse is discussed in appendix I.

To characterize the reliability of the ratings obtained from the schools, data were collected on the length of time and the capacity in which the respondent had known the youth he was rating.

Four of every five youths were rated by school officials who had known them for at least one semester, and one-half were rated by officials who had known them 1 year or longer (table 1). Three of every five youths were rated by counselors or administrative personnel, and almost all others were rated by school principals or classroom teachers.

Grade Placement and Attendance

Table 2 shows the percent distribution of the youths for whom responses to the school questionnaire were received, by grade in school. About 90 percent of the adolescent population covered were enrolled in grades 7 through 12. Considering age requirements for admission to school, about 52 percent of the youths were reported to be in the grade appropriate for their ages (the modal grade); 12 percent were one grade above, and 26 percent were one grade below. Part of this lag is explained by the larger proportion of youths who had repeated grades (16 percent), relative to the proportion that had skipped grades (1 percent). (See table 3.) For one-half of the youths who were made to repeat grades, academic failure was cited as the primary reason; a variety of problems related to social immaturity, excess absences, or circumstances resulting from family or social acts were reported to have been responsible for impeding the progress of the other half. Almost twice as many boys as girls were reported to have failed to advance in grade.

Around one of every eight youths were reported to have been absent an "unusual number of days" during the most recently completed school year (table 4). Illness of the youth was cited as the main reason for one-half of the cases, a reason cited somewhat more often for girls than for boys. As one would expect, the higher rate of truancy was reported for boys.

Special Educational Resources

Information was obtained on the need for and the availability and utilization of special educational resources for handicapped or gifted youths (tables 5 and 6). Resources beyond those available in the regular classroom were recommended for one-sixth of the youths covered by this survey. More boys were reported as needing special instruction than were girls (20 percent, compared with 14 percent).

Six percent of all youths 12-17 years of age, or 37 percent of those in special programs, were recommended for remedial reading. Training for slow learners, another type of special resource recommended for a large proportion (32 percent) of those needing any of the special resources, was recommended for 5 percent of the youths. Table A shows the proportions of youths reported as needing special resources and the percent distribution of those recommended for the various service programs.

Information on the availability and use of special educational resources for the youths recommended is presented in table 6. Relatively high rates of utilization were reported for educational services for the gifted, the mentally retarded, and the orthopedically handicapped. The low rates for youths needing language training and remedial training in special subject areas reflect the lack of special resources for such purposes. The reasons given for non-use of available special resources were grouped under overcrowding and problems of scheduling (50 percent), students' objections (26 percent), parents' objections (8 percent), and circumstances associated with illness, disability, or inconvenience (7 percent). In 9 percent of the cases the reasons were unknown.

Table B shows the relatively high rate of grade repetition among youths reported as needing special educational resources.

A question similar to the one used in Cycle III to obtain the estimates on the need and use of special resources (item 8, appendix H) was included in Cycle II.[1] However, there are differ-

Table A. Percent of youths with specified problems and percent distribution of those recommended for special resources, with standard error of percent of those recommended by type of problem, according to sex: United States, 1966-70

Type of problem	Youths with specified problems			Youths recommended for special resources			
	Both sexes	Boys	Girls	Boys	Girls	Boys	Girls
	Percent			Percent distribution[1]		Standard error of percent of youths recommended	
Total	16.7	19.5	13.9	100.0	100.0	...	...
Hard of hearing	0.3	0.4	0.1	2.1	0.9	0.66	0.57
Sight-saving	0.2	0.2	0.2	1.2	1.6	0.48	0.71
Speech therapy	1.1	1.3	1.0	6.5	7.0	1.14	1.44
Orthopedic handicap	0.2	0.1	0.3	0.4	1.8	0.31	0.76
Gifted	2.8	2.5	3.0	12.1	21.9	1.57	2.34
Slow learners (not mentally retarded)	5.3	6.4	4.1	32.8	29.5	2.19	2.58
Mentally retarded	1.3	1.9	0.8	9.5	5.7	1.37	1.32
Emotionally disturbed	1.2	1.7	0.7	8.5	5.1	1.30	1.24
Remedial reading	6.2	7.7	4.7	39.5	33.6	2.28	2.66
English for youths from non-English-speaking environments	0.7	1.0	0.5	5.0	3.4	1.01	1.03
Remedial training in special subject areas	2.6	3.2	2.1	16.2	14.9	1.71	2.01
Other problems	1.4	1.8	1.1	9.0	7.6	1.33	1.50

[1] Because some youths were recommended for more than 1 resource, the percentages shown for the various categories will total more than 100.0.

ences in wording and presentation that afforded possible differences in interpretation by the respondents and results that may not be generally comparable. In Cycle II, the teachers reported that about 30 percent of the children would be recommended for special training "if special resources were available"—a proportion that is considerably higher than the 17 percent of all youths in this study who were reported to "need or be currently using" special resources. On examining the data by age, one would disallow certain plausible explanations of this difference such as the effect of screening and of growth and development. For example, 31 percent of the children 11 years of age were reported as needing special resources, while only 20 percent of the youths 12 years of age needed them. This difference is much greater than that observed for any other two contiguous ages.

Intellectual Ability

Teachers were asked to assess the intellectual ability of the youths using a 3-point scale to indicate whether they considered the youth to be above average, average, or below average in ability (table 7).

Nearly 28 percent of the youths were rated as above average in intellectual ability, and 20 percent received a rating of below average. Compared with the boys, the girls were rated higher in ability.

The performance of these youths as measured by the Vocabulary and Block Design subtests of the Wechsler Intelligence Scale for Children (WISC)[7] generally supported the teachers' independent classification into broad ability groups (tables 8 and 9), although it did not reflect the more favorable ratings of the girls. For each age-sex class, the group of youths rated as average showed average scores on the subtests; those rated as above average showed above-average scores, and so forth.

Table 10 indicates that the youths who were rated higher on ability were reported to have better attendance records.

The similarity of the distributions of children 6-11 years (from Cycle II) and youths 12-17

Table B. Percent of youths recommended for special resources who repeated grades, with standard error of percent of those repeating, by type of problem and sex: United States, 1966-70

Category of youths recommended for special resources and type of problem	Youths who repeated grades					
	Both sexes	Boys	Girls	Both sexes	Boys	Girls
	Percent			Standard error of percent of those repeating		
All youths, 12-17 years	15.8	19.6	11.9	1.07	1.12	1.10
Those not recommended for special resources	12.0	15.0	9.0	0.85	0.95	0.90
Those recommended for special resources	34.9	38.9	29.1	2.91	3.06	3.61
Hearing, sight, or speech therapy	28.3	(1)	(1)	5.66	(1)	(1)
Gifted	1.2	2.8	-	0.93	1.91	-
Slow learners (not mentally retarded)	52.7	56.0	47.6	4.45	4.51	5.55
Mentally retarded	57.8	63.4	44.2	4.72	6.49	7.20
Emotionally disturbed	52.1	39.2	83.0	6.66	6.61	9.16
Remedial reading	38.1	41.1	33.1	2.86	4.50	3.55
English for youths from non-English-speaking environments	52.0	(1)	(1)	18.83	(1)	(1)
Remedial training in special subject areas	47.4	52.2	40.0	5.79	7.05	8.46
Other problems	31.7	34.5	27.6	5.84	7.31	9.72

[1] Estimate is considerably below standards of reliability or precision.

years according to rated intellectual ability suggests that the differential in perceived ability for the two sexes was the same for both age groups, with more girls than boys being rated as having superior ability.

Academic Performance

The youths were also rated by their teachers on a 3-point scale with respect to academic standing in class. The respondents indicated in which third of the youth's class he should be ranked (table 7). The middle third contains somewhat more youths than one would assign to that group if classes were divided into three equal parts; but considering that for the most part each youth was assessed independently, the results are understandable and reasonable. As in the appraisal of ability, girls were rated higher than boys, with the observed difference in performance ratings being substantially greater than the difference in ability ratings.

Mean raw scores on the two subtests (Reading and Arithmetic) of the Wide Range Achievement Test (WRAT),[8] which were used in the survey to measure school achievement, are shown for the youths according to reported academic standing in class in tables 11 and 12. These test data strongly attest the reliability of the performance ratings of the school officials.

A comparison of data in table 11 with that in table 12 suggests that the criterion for rating the youths' performance was related more to verbal ability than to arithmetic skill. These data also support the finding of Arnold (1968)[9] and McCandless (1970)[10] that teachers tended to estimate the achievement of boys less accurately than that of girls, and the survey data demonstrate that this occurred primarily with respect to arithmetic. In all but 2 of the 18 groups by class standing and age, the boys who were reported to rank in a particular third of their classes made higher achievement test scores than did the girls in the same group (table 12).

Figure 1 shows the positive association between high academic standing in class and record

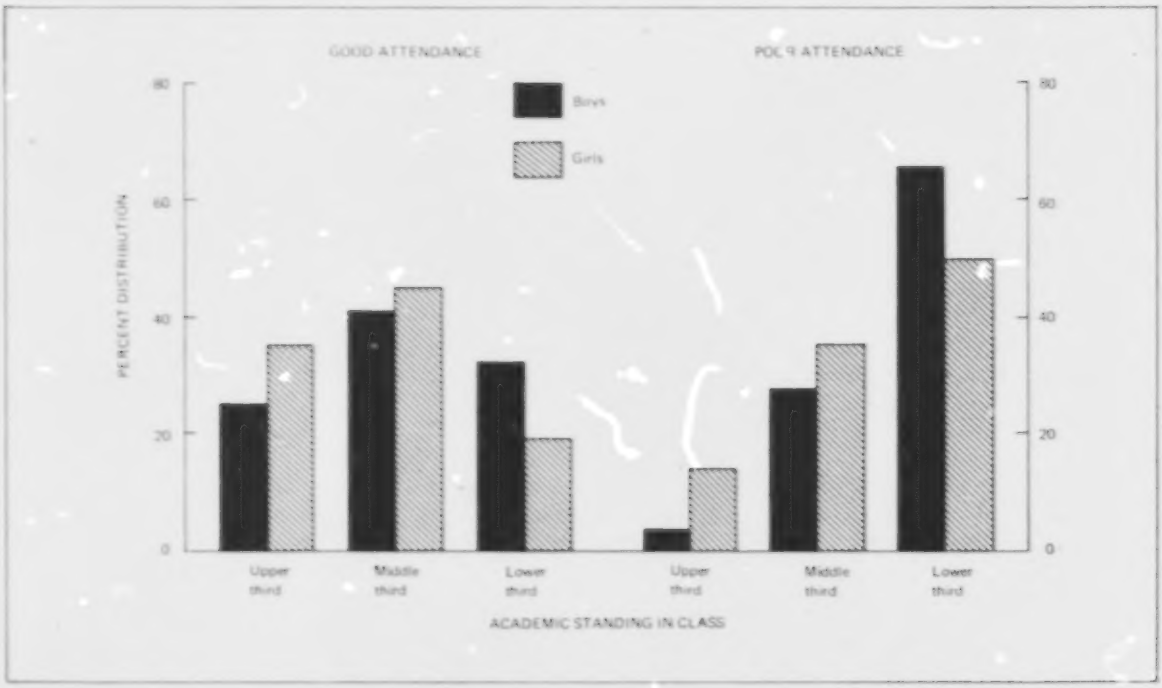

Figure 1. Percent distribution of youths by level of academic performance, according to attendance and sex: United States, 1966-70.

of good attendance, which is shown in greater detail in table 13.

In table 14, information is presented on the repeating of grades according to current academic standing in class of the youths. Academic failure as the main reason for repeating grades was more frequently cited for boys whose performance was rated in the upper levels of the class than it was for girls with a similar performance rating.

Although the corresponding question in the survey of children 6-11 years of age presented categories of choice that were different from those in this report, it may be seen that in that study girls also were rated higher in school performance than were boys.

In the data on academic performance of children and youths, based on Cycle II and Cycle III of the HES, a significant trend by age is observed—a definite and substantial increase with age in the proportion of boys who were rated as below average in academic rank in class, from 24 percent at age 6 to 40 percent at age 17.

Ability-Performance Comparison

The close relationship between the ratings of intellectual ability and academic performance is shown in table 15. For example, 88 percent of the youths who were ranked in the lower third of their classes were considered to be below average in ability. To some extent, the perceived relationship between ability and performance is reflected in this comparison of evaluations.

In figure 2 the intellectual ability of the boys and girls as assessed by their teachers, is compared with their academic performance. Apart from the overall higher scholastic evaluation given the girls, the data indicate that the difference between the sexes in academic performance was twice as large as the difference in rated intellectual ability. This may well be a reflection of the effects of certain alleged disadvantages under which boys work in schools as currently organized, as cited by Datta, Schaefer, and Davis[11]; Jackson and Lahaderne[12]; and Sears and Feldman.[13]

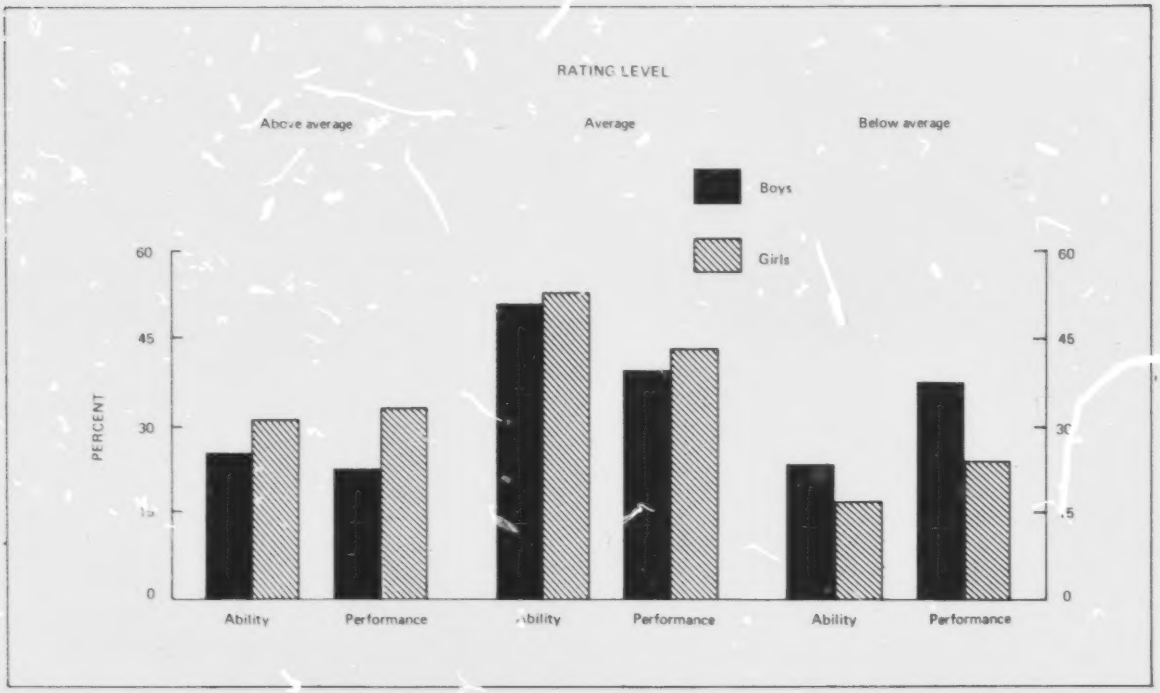

Figure 2. Proportion of youths, by ratings received for intellectual ability and academic performance and sex: United States, 1966-70.

Peer Relations

Above-average popularity with other students was recognized by the raters as a characteristic of one of every eight youths (table 16). When peer relations of girls were compared with those of boys, a larger proportion of girls (14 percent) than of boys (11 percent) were rated as having above-average popularity. A large proportion of the youths (64 percent) were reported to be average in popularity, and 10 percent were thought to be less than average. For a relatively large proportion (13 percent) of the youths—considering the rate of response to the other questions—the rater indicated that he could not assess the youth's popularity with other students.

In the ratings for both boys and girls, more popularity was associated with greater intellectual ability (table 17 and figure 3). A similar, more pronounced, and consistent relationship of a rating of high academic standing with above-average popularity was observed for boys as well as girls (table 18). Youths thought to be relatively unpopular tended to have records of poor attendance (table 19).

Disciplinary Action

One aspect of the behavior of youths in school was explored by obtaining data on frequency of need for disciplinary action. The teachers reported that some disciplinary action was required for one of every four youths and that the need was more frequently indicated for boys than for girls (table 20). The observed difference with respect to sex is consistent with the conclusion of McCandless[10] that adolescent boys were more frequently scolded, reprimanded, shamed, commanded, and otherwise disciplined than were girls. The distribution of youths for whom data on disciplinary action were available according to attendance shows that a record of good attendance was positively associated with the absence of disciplinary problems (table 20). The teachers' assessment was that disciplinary action was less frequently required for youths rated higher on the scale of intellectual ability (table 21). Naturally, the

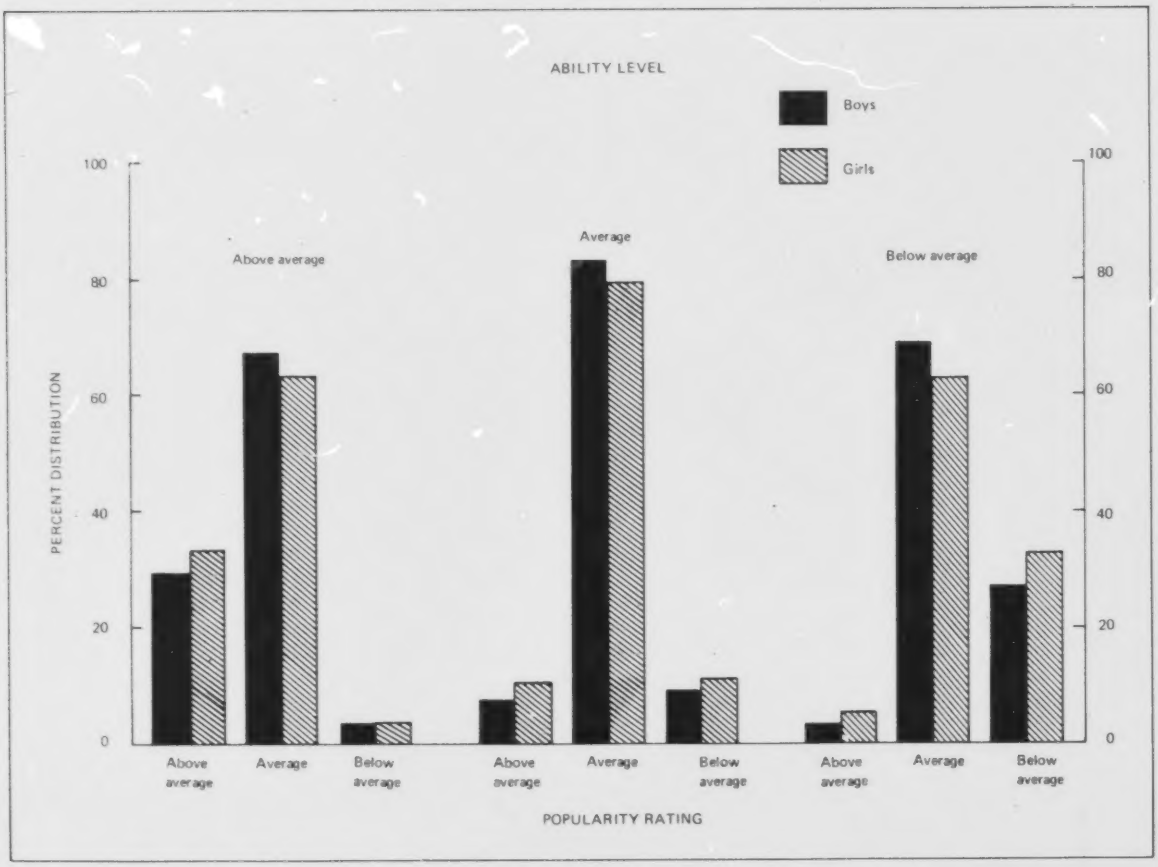

Figure 3. Percent distribution of youths by peer group relations, according to level of intellectual ability and sex: United States, 1966-70.

same was true with respect to the association of academic standing with frequency of required disciplinary action (table 22 and figure 4). Table 23 shows that the youths considered to be more popular with other students were less likely to be the ones thought by teachers to require frequent acts of discipline.

Findings on frequency of disciplinary action from Cycles II and III of the HES are not directly comparable because the questions used to obtain this information were worded somewhat differently in each of the two cycles. For children 6-11 years of age, the question referred to the needs of the "child," while the word "student" was used to characterize the individual in the survey of youths. It appears that a broader interpretation was made by the teachers when they responded to the question in the earlier survey. Thus, fewer youths as *students* (35 percent) than *children* 6-11 years (64 percent) were rated by teachers as needing some form of discipline even when comparing 12-year-old *students* (38 percent) with 11-year-old *children* (60 percent).

Emotional Adjustment to School

Approximately three-fourths of the youths were rated by their teachers as being well adjusted to the school environment (table 16). About 17 percent of those rated were considered to be emotionally maladjusted to some observable degree. (This excludes those for whom no rating was given because the respondent felt that there was no basis for making the evaluation.) When ratings for the emotional adjustment of boys were compared with those of girls, a larger proportion of girls (four of every five) than of boys were reported to be well adjusted to the school situation. Lahaderne[14]

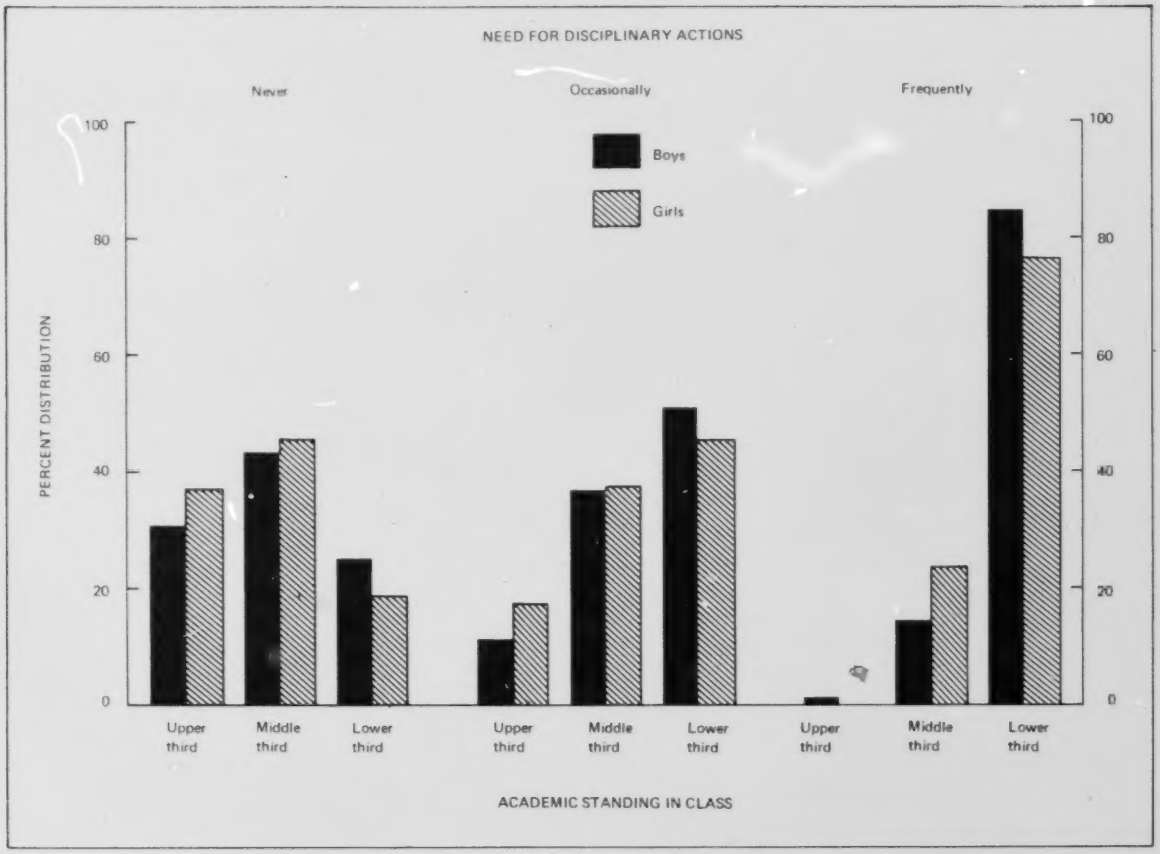

Figure 4. Percent distribution of youths by level of academic performance, according to frequency of disciplinary action and sex: United States, 1966-70.

and McCandless[10] found that girls within all social classes adjusted better to school than boys did.

The association between school attendance and level of emotional adjustment (table 24) is demonstrated in that a larger proportion of the youths with records of poor attendance (about 40 percent) were considered to be maladjusted, compared with those with a history of good attendance (about 13 percent).

Table 25 shows that for two-thirds of the youths reported to be "seriously maladjusted," some special educational resource was recommended. About 38 percent of those said to be "somewhat maladjusted" were recommended for the programs, compared with 12 percent of those considered to be well adjusted. The large proportions of youths reported to be maladjusted and enrolled in special programs for the emotionally disturbed, slow learners, and those who needed help with reading, along with the relatively large proportions of those considered well adjusted who were in the programs for the gifted, tend to confirm the expected and could be regarded as evidence of consistency in these ratings. Compared with the girls, larger proportions of the boys in the several adjustment groups were recommended for special educational training. However, the observed differences in percentages by sex for the two categories indicating ratings of maladjustment were found to be statistically insignificant at the 1-percent confidence level.

Table 26 gives the percent distribution of youths by their intellectual ability according to three levels of estimated emotional adjustment, age, and sex. For both boys and girls, the data indicate a definite association between intellectual ability and level of emotional adjustment. Youths considered to be better adjusted were

more often judged to have greater ability. Table C shows that among boys and girls with above-average ability more than 9 of every 10 were considered to be well adjusted, compared with 6 of every 10 with below-average ability.

As one would expect, the relationship between academic standing in class and level of adjustment was found to be similar to, but stronger than, that between ability and adjustment (table 27 and figure 5).

In table 28, data on the popularity of the youths with their peers are shown for the three levels of adjustment. Greater popularity was associated with more favorable evaluations of emotional adjustment. The more unfavorably the youth's adjustment was viewed, the higher the reported frequency of required disciplinary action tended to be (table 29). More than one-half of those reported as demonstrating the poorest adjustment were said to have frequently needed disciplinary action, compared with less than 1 percent for the group described as well adjusted.

Although data on the emotional adjustment of children 6-11 years of age were compiled from responses to a question for which a somewhat different set of categories for selection was provided, some valid gross comparisons with findings on the youths can be made. The same proportion of children as of youths (83 percent) was rated as well adjusted or, in the case of the children, as manifesting no problems. However, when boys and girls are considered separately, the data show that although there were higher proportions of girls than of boys classified as well adjusted in both surveys, the proportion of boys so classified increased from one age group (6-11 years) to the other (12-17 years), while that of girls declined.

SUMMARY

In this report, estimates of the distributions of perceptions of teachers and other school officials on selected behavioral characteristics of youths 12-17 years of age in the noninstitutional U.S. population have been presented by age and sex. These findings are based on responses obtained by questionnaire from schools last attended by youths examined in the Health Examination Survey of 1966-70. A total of 6,867 youths were examined. They comprised a sample drawn to be closely representative of U.S. adolescents with respect to age, sex, race, region, and certain other available demographic and socioeconomic factors.

Data are presented on various aspects of the behavior of youths in school related to growth and development during the adolescent period as seen by their teachers. A descriptive analysis was made of the teachers' responses concerning the youths' intellectual ability, academic performance, peer relations, and emotional adjustment to school. Specific behavioral patterns are examined in relation to assessments of mental development, achievement in school, and adjustment. Certain general findings are summarized

Table C. Percent distribution of youths by rating of level of adjustment, according to rating of intellectual ability and sex: United States, 1966-70

Rating of level of adjustment	Rating of intellectual ability					
	Above average		Average		Below average	
	Boys	Girls	Boys	Girls	Boys	Girls
	Percent distribution					
All youths, 12-17 years	100.0	100.0	100.0	100.0	100.0	100.0
Well adjusted	92.2	95.6	83.8	89.0	56.7	59.2
Somewhat maladjusted	6.5	4.1	15.3	10.2	38.6	37.2
Seriously maladjusted	1.4	0.3	0.9	0.8	4.7	3.6

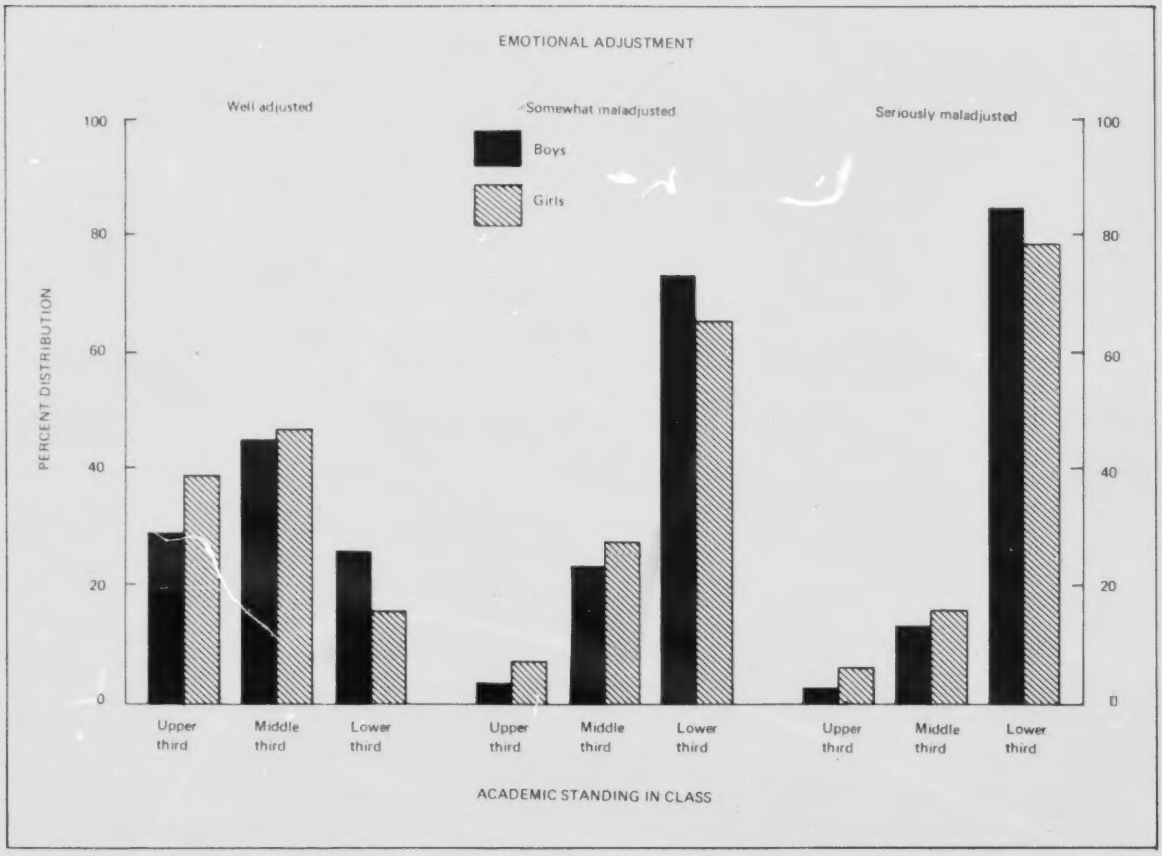

Figure 5. Percent distribution of youths by level of academic performance, according to level of emotional adjustment and sex: United States, 1966-70.

and compared with results from the study of growth and development of children conducted in a previous program of the National Health Survey.

In general, the responses tended to express the impression that in the schools of the Nation as currently organized—assuming the goals of formal education as presently generally conceived to be desirable—adolescent girls appeared to be more successful than adolescent boys, particularly with respect to adjustment to the specific environment. This is consistent with the findings, based on measured performance in this survey, that girls achieved higher scores on tests of school achievement even though boys showed higher scores on tests of intellectual development.

REFERENCES

[1]National Center for Health Statistics: Behavior patterns of children in school, United States. *Vital and Health Statistics.* Series 11-No. 113. DHEW Pub. No. (HSM) 72-1042. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Feb. 1972.

[2]National Center for Health Statistics: Origin, program, and operation of the U.S. National Health Survey. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 1. Public Health Service. Washington. U.S. Government Printing Office, Apr. 1965.

[3]National Center for Health Statistics: Plan and initial program of the Health Examination Survey. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 4. Public Health Service. Washington. U.S. Government Printing Office, July 1965.

[4]National Center for Health Statistics: Cycle I of the Health Examination Survey: Sample and response, United States, 1960-62. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 11-No. 1. Public Health Service. Washington. U.S. Government Printing Office, Apr. 1964.

[5]National Center for Health Statistics: Plan, operation, and response results of a program of children's examination. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 5. Public Health Service. Washington. U.S. Government Printing Office, Oct. 1967.

[6]National Center for Health Statistics: Plan and operation of a Health Examination Survey of U.S. youths 12-17 years of age. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 8. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1969.

[7]National Center for Health Statistics: Intellectual development of youths as measured by a short form of the Wechsler Intelligence Scale for Children, United States. *Vital and Health Statistics.* Series 11-No. 128. DHEW Pub. No. (HRA) 76-1610. Health Resources Administration. Washington. U.S. Government Printing Office, Sept. 1973.

[8]National Center for Health Statistics: Reading and arithmetic achievement among youths 12-17 years as measured by the Wide Range Achievement Test, United States. *Vital and Health Statistics.* Series 11-No. 136. DHEW Pub. No. (HRA) 74-1618. Health Resources Administration. Washington. U.S. Government Printing Office, Jan. 1974.

[9]Arnold, R. A.: The achievement of boys and girls taught by men and women teachers, *Elementary School J.* 68:367-71, 1968.

[10]McCandless, B. R.: *Adolescents: Behavior and development.* Hensdale, Ill. Dryden Press, 1970.

[11]Datta, L. E., Schaefer, E., and Davis, M.: Sex and scholastic aptitude as variables in teachers' ratings of the adjustment and classroom behavior of Negro and other seventh-grade students, *J.Educ.Psych.* 59:94-101, 1968.

[12]Jackson, P. W., and Lahaderne, H. M.: Inequalities of teacher-pupil contacts. Paper presented in a symposium "Observing in Schools" at the 74th Annual Convention of the American Psychological Association, New York, Sept. 1966.

[13]Sears, P. S., and Feldman, D. H.: Teachers' interactions with boys and with girls, *Natl.Elementary Principal* 46:30-35, 1966.

[14]Lahaderne, H. M.: Attitudinal and intellectual correlates of attention: A study of four sixth-grade classrooms, *J.Educ.-Psych.* 59:320-24, 1968.

[15]National Center for Health Statistics: Pseudoreplication: Further evaluation and application of the balanced half-sample technique. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 2-No. 31. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1969.

[16]National Center for Health Statistics: Relationships among parent ratings of behavioral characteristics of children, United States. *Vital and Health Statistics.* Series 11, No. 121. DHEW Pub. No. (HSM) 73-1603. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Oct. 1972.

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Table 1. Percent distribution of youths 12-17 years of age by time and capacity known to person completing school questionnaire, according to age and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Time known					Capacity known					
	Total	Less than 1 semester	Between 1 semester and 1 year	1-2 years	More than 2 years	Total	Teacher, classroom	Teacher, specialty area	School principal	Other	More than 1
	Percent distribution										
All ages, both sexes											
Total, 12-17 years	100.0	20.1	29.5	22.5	27.9	100.0	10.3	1.6	26.2	60.4	1.5
12 years	100.0	27.0	37.4	15.4	20.1	100.0	28.7	2.7	30.8	36.1	1.7
13 years	100.0	19.7	34.1	25.5	20.7	100.0	15.0	2.6	29.1	51.2	2.1
14 years	100.0	19.6	30.4	22.1	27.9	100.0	7.6	2.0	24.7	63.8	1.9
15 years	100.0	23.6	34.2	23.1	19.1	100.0	3.5	0.9	22.5	71.7	1.4
16 years	100.0	16.7	22.8	28.1	32.5	100.0	1.7	0.5	23.5	73.3	1.0
17 years	100.0	11.8	14.1	21.7	52.5	100.0	1.4	0.8	25.6	71.7	0.5
Boys											
Total, 12-17 years	100.0	19.9	29.5	23.1	27.5	100.0	10.3	1.9	27.1	59.2	1.4
12 years	100.0	28.0	37.7	14.0	20.3	100.0	27.4	2.6	[illegible].1	35.6	1.3
13 years	100.0	20.3	33.5	26.6	19.5	100.0	16.0	3.2	[illegible].9	48.2	2.6
14 years	100.0	16.6	30.0	27.0	26.3	100.0	8.5	2.9	26.3	60.3	2.0
15 years	100.0	23.7	35.1	21.5	19.7	100.0	3.3	1.0	21.8	72.9	1.0
16 years	100.0	16.7	2[illegible].5	27.3	34.5	100.0	1.5	0.4	23.7	73.5	0.9
17 years	100.0	11.9	15.[illegible]	[illegible].3	49.7	100.0	1.[illegible]	1.1	26.8	70.4	0.8
Girls											
Total, 12-17 years	100.0	20.2	29.5	21.9	28.4	100.0	10.3	1.3	25.2	61.7	1.5
12 years	100.0	26.0	37.2	16.9	19.9	100.0	30.1	2.7	28.4	36.6	2.2
13 years	100.0	19.2	34.6	[illegible].3	21.9	100.0	14.0	1.9	28.3	54.1	1.7
14 years	100.0	22.7	30.8	17.0	29.5	100.0	6.7	1.1	23.0	67.5	1.8
15 years	100.0	23.4	3[illegible]	24.8	18.5	100.0	3.7	0.8	23.3	70.4	1.8
16 years	100.0	16.6	24.1	29.0	30.3	100.0	1.9	0.6	23.2	73.1	1.2
17 years	100.0	11.6	13.1	20.0	55.3	100.0	1.8	0.5	24.5	73.0	0.2
Standard error											
Both sexes	...	1.82	2.10	1.55	1.01	...	1.23	0.48	1.97	0.81	0.24
Boys	...	2.06	2.38	1.79	1.45	...	1.16	0.51	1.95	1.09	0.28
Girls	...	1.73	2.12	1.58	1.09	...	1.39	0.49	2.21	1.08	0.30

Table 2. Percent distribution of youths 12-17 years of age by school placement, according to age and sex, and standard error of percent for both sexes: United States, 1966-70

Age and sex	Total	Grade in school								High school graduate	Other placements[1]
		5th or lower	6th	7th	8th	9th	10th	11th	12th		
All ages, both sexes		Percent distribution									
Total, 12-17 years	100.0	1.4	6.0	15.9	18.8	16.0	16.3	13.6	9.5	1.5	1.1
12 years	100.0	5.2	25.5	55.2	12.4	0.2	-	-	-	-	1.5
13 years	100.0	1.5	5.9	23.4	57.5	10.1	0.2	-	-	-	1.4
14 years	100.0	0.4	1.3	6.8	28.5	48.8	12.9	0.2	0.1	-	1.1
15 years	100.0	0.4	0.4	1.7	6.3	26.5	51.7	11.8	0.2	0.2	0.9
16 years	100.0	0.2	-	0.6	1.0	6.7	27.8	51.2	12.0	0.1	0.4
17 years	100.0	-	-	0.4	0.5	2.0	7.8	25.4	53.0	9.9	1.1
Boys											
Total, 12-17 years	100.0	1.5	6.6	16.5	18.9	16.1	15.7	13.2	8.8	1.2	1.4
12 years	100.0	5.7	27.5	53.5	11.0	0.3	-	-	-	-	1.9
13 years	100.0	1.7	6.7	26.5	53.7	9.2	0.3	-	-	-	1.8
14 years	100.0	0.6	1.8	8.1	32.6	44.1	11.1	-	0.1	-	1.5
15 years	100.0	-	0.3	2.5	7.6	29.8	47.6	10.3	0.2	0.2	1.5
16 years	100.0	-	-	0.8	1.8	8.5	26.8	50.1	11.4	0.2	0.5
17 years	100.0	-	-	-	0.9	2.9	11.2	25.8	49.5	8.4	1.3
Girls											
Total, 12-17 years	100.0	1.3	5.3	15.2	18.7	16.0	17.0	14.0	10.1	1.7	0.7
12 years	100.0	4.7	23.4	56.9	13.9	-	-	-	-	-	1.1
13 years	100.0	1.3	5.0	20.3	61.3	11.0	0.2	-	-	-	0.9
14 years	100.0	0.2	0.7	5.4	24.2	53.7	14.8	0.3	-	-	0.7
15 years	100.0	0.7	0.4	0.8	5.1	23.0	55.8	13.3	0.3	0.2	0.3
16 years	100.0	0.4	-	0.4	0.2	4.9	28.8	52.4	12.6	-	0.3
17 years	100.0	-	-	0.7	-	1.0	4.4	24.9	56.6	11.5	0.9
Standard error											
Both sexes	...	0.26	0.67	0.42	0.39	0.46	0.35	0.59	0.60	0.27	0.22

Note.—Excludes approximately 8 percent of the youths, mainly high school graduates or other persons not in school, for whom there was no response to the school questionnaire.

[1] Includes those in special placement categories and those who discontinued their schooling before graduation from high school.

Table 3. Percent of youths 12-17 years of age who skipped or repeated grades and percent distribution of youths by reason for repeating, according to age and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Percent skipping	Percent repeating	Reason for repeating					
			Total[1]	Academic failure	Social immaturity	Excess absence	Other	Combination
			Percent distribution					
All ages, both sexes								
Total, 12-17 years	0.9	15.8	100.0	49.6	7.8	2.7	22.8	17.1
12 years	0.7	18.3	100.0	55.1	5.4	3.7	15.1	16.7
13 years	0.8	14.3	100.0	53.0	11.0	0.7	20.4	14.9
14 years	1.0	17.5	100.0	48.5	5.2	3.5	25.0	17.8
15 years	0.7	16.7	100.0	41.8	11.1	1.8	25.3	20.0
16 years	1.3	14.2	100.0	52.5	4.3	4.0	28.0	11.2
17 years	0.9	13.2	100.0	44.4	4.1	1.8	27.0	22.7
Boys								
Total, 12-17 years	1.0	19.6	100.0	49.9	8.3	3.0	19.4	19.4
12 years	0.9	21.6	100.0	57.2	11.9	3.5	9.5	17.9
13 years	1.0	15.7	100.0	50.7	12.5	1.2	16.9	18.7
14 years	1.2	23.9	100.0	52.7	5.0	4.2	19.3	18.8
15 years	0.6	19.0	100.0	45.5	8.5	2.1	21.7	22.2
16 years	1.5	19.3	100.0	48.5	5.2	4.5	27.2	14.6
17 years	0.8	17.8	100.0	39.4	6.1	1.3	27.0	26.2
Girls								
Total, 12-17 years	0.8	11.9	100.0	49.1	7.1	2.1	28.6	13.1
12 years	0.4	14.8	100.0	51.7	5.4	4.1	24.0	14.8
13 years	0.6	12.9	100.0	55.7	9.1	-	24.7	10.5
14 years	0.9	11.1	100.0	39.0	5.7	2.0	37.7	15.6
15 years	0.9	14.2	100.0	36.6	14.8	1.5	30.3	16.8
16 years	1.1	8.5	100.0	62.6	2.1	2.6	30.2	2.5
17 years	0.9	8.5	100.0	55.1	-	3.0	26.6	15.3
Standard error								
Both sexes	0.17	1.02	...	2.87	1.67	0.62	1.53	1.55
Boys	0.18	1.12	...	2.98	1.73	1.08	1.79	1.90
Girls	0.21	1.10	...	3.20	2.25	0.87	2.77	2.15

Table 4. Percent of youths 12-17 years of age with unusual amounts of absences from school in the past year and percent distribution of youths by reason for absences, according to age and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Percent absent more than usual	Total	Reason for absence				
			Illness of youth	Illness of relatives	Truancy	Other	Combination
All ages, both sexes		Percent distribution					
Total, 12-17 years	12.8	100.0	51.1	1.8	12.6	24.1	10.4
12 years	8.4	100.0	49.6	-	7.9	32.6	9.9
13 years	9.6	100.0	57.3	4.6	6.5	24.2	7.4
14 years	12.5	100.0	51.9	3.0	8.8	26.1	10.2
15 years	16.0	100.0	47.6	1.3	14.4	24.6	12.1
16 years	15.4	100.0	52.7	1.2	17.3	17.1	11.7
17 years	16.6	100.0	48.7	1.0	17.2	22.7	10.4
Boys							
Total, 12-17 years	12.0	100.0	45.8	1.2	19.3	23.1	10.6
12 years	7.4	100.0	52.9	-	2.0	35.6	9.5
13 years	8.3	100.0	59.4	-	11.3	22.5	6.8
14 years	11.5	100.0	50.9	1.3	9.2	29.7	8.9
15 years	15.1	100.0	36.9	2.8	23.9	22.5	13.9
16 years	14.0	100.0	41.6	1.2	31.2	14.4	11.6
17 years	17.8	100.0	41.7	1.1	27.5	19.0	10.7
Girls							
Total, 12-17 years	13.6	100.0	55.8	2.4	6.5	25.0	10.3
12 years	9.4	100.0	46.9	-	12.6	30.4	10.1
13 years	10.9	100.0	55.7	8.1	2.8	25.6	7.8
14 years	13.5	100.0	52.7	4.5	8.5	23.0	11.3
15 years	16.9	100.0	57.5	-	5.6	26.5	10.4
16 years	16.9	100.0	62.5	1.2	4.9	19.7	11.7
17 years	15.4	100.0	56.2	1.0	6.2	26.6	10.0
Standard error							
Both sexes	0.73	...	2.56	0.50	1.39	1.68	1.37
Boys	0.79	...	3.30	0.57	2.47	2.50	1.51
Girls	0.87	...	3.06	0.98	1.16	2.49	2.22

Table 5. Percent of youths 12-17 years of age for whom special resources were recommended, by type of problem, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Some resource recommended	Type of problem										
		Hard of hearing	Sight-saving	Speech therapy	Orthopedic handicap	Gifted	Slow learner	Mentally retarded	Emotionally disturbed	Remedial reading	Remedial training, other	Other
	Percent of youth											
All ages, both sexes												
Total, 12-17 years	16.7	0.3	0.2	1.1	0.2	2.8	5.3	1.3	1.2	6.2	2.6	2.1
12 years	19.6	0.2	0.3	1.8	0.3	2.7	6.3	1.0	1.7	10.0	2.6	2.2
13 years	21.1	0.3	0.1	1.4	0.1	3.0	6.5	1.9	1.4	8.2	3.2	2.4
14 years	17.5	0.2	0.3	1.3	0.1	3.3	5.5	1.5	1.0	6.6	3.3	1.5
15 years	15.5	0.2	0.4	0.7	0.5	1.3	5.3	1.8	1.6	5.2	2.4	2.2
16 years	11.2	-	0.1	0.6	-	2.7	3.5	0.6	0.7	4.2	1.8	1.8
17 years	14.1	0.8	0.2	0.9	-	3.8	4.0	1.2	0.7	1.7	2.2	2.8
Boys												
Total, 12-17 years	19.5	0.4	0.2	1.3	0.1	2.5	6.4	1.9	1.7	7.7	3.2	2.7
12 years	23.0	0.5	-	1.7	-	2.5	7.5	1.4	2.3	11.5	3.1	2.3
13 years	24.9	0.3	0.3	1.7	0.2	3.3	7.4	2.6	2.1	10.0	4.0	3.1
14 years	20.2	0.2	0.3	1.2	-	2.8	7.1	2.1	1.6	8.6	4.0	1.9
15 years	18.4	0.3	0.8	1.0	0.3	1.4	6.6	2.7	2.0	6.3	2.8	3.3
16 years	13.7	-	-	0.9	-	3.3	4.1	0.6	0.4	6.0	2.4	2.8
17 years	14.9	1.3	0.2	0.9	-	2.1	5.2	1.8	1.3	2.5	2.8	3.4
Girls												
Total, 12-17 years	13.9	0.1	0.2	1.0	0.3	3.0	4.1	0.8	0.7	4.7	2.1	1.5
12 years	15.9	-	0.5	1.9	0.5	2.9	4.9	0.5	0.9	8.4	2.2	2.0
13 years	17.2	0.3	-	1.1	-	2.7	5.6	1.1	0.6	6.5	2.4	1.7
14 years	14.8	0.2	0.3	1.3	0.2	3.8	3.9	0.8	0.3	4.5	2.7	1.2
15 years	12.5	-	-	0.4	0.8	1.3	3.9	0.8	1.1	4.2	2.1	1.2
16 years	8.7	-	0.2	0.2	-	2.2	2.9	0.5	1.0	2.3	1.2	0.9
17 years	13.3	0.2	0.2	0.9	-	3.6	2.8	0.5	0.2	0.9	1.7	2.1
Standard error												
Both sexes	0.63	0.09	0.05	0.18	0.07	0.46	0.44	0.21	0.12	0.42	0.34	0.32
Boys	0.97	0.16	0.04	0.23	0.04	0.45	0.58	0.24	0.19	0.61	0.45	0.48
Girls	0.76	0.07	0.09	0.24	0.14	0.64	0.48	0.17	0.20	0.38	0.37	0.28

Table 6. Percent distribution and standard error of percent of youths 12-17 years of age for whom special resources were recommended by availability and use of resource, according to type of problem and sex: United States, 1966-70

Type of problem	Both sexes				Boys				Girls			
	Total	Resources used	Available, not used	Not available	Total	Resources used	Available, not used	Not available	Total	Resources used	Available, not used	Not available
	Percent distribution											
Hard of hearing	100.0	51.6	19.4	28.9	100.0	45.8	17.0	37.3	100.0	72.4	27.6	-
Sight saving	100.0	68.9	20.0	11.1	100.0	79.4	-	20.6	100.0	56.8	43.2	-
Speech therapy	100.0	67.3	6.6	26.0	100.0	62.9	5.2	31.8	100.0	73.3	8.5	18.2
Orthopedic handicap	100.0	85.2	5.9	9.0	100.0	37.9	24.6	37.4	100.0	100.0	-	-
Gifted	100.0	89.2	3.4	7.4	100.0	90.4	3.0	6.6	100.0	88.1	3.8	8.1
Slow learners (not mentally retarded)	100.0	72.9	5.7	21.4	100.0	71.1	5.0	24.0	100.0	75.9	6.9	17.2
Mentally retarded	100.0	86.8	3.2	10.0	100.0	86.2	3.0	10.8	100.0	88.1	3.7	8.2
Emotionally disturbed	100.0	51.5	19.0	29.5	100.0	48.2	14.1	37.7	100.0	59.4	30.7	9.9
Remedial reading	100.0	73.3	9.2	17.5	100.0	73.6	8.3	18.1	100.0	72.7	10.9	16.4
English for youths from non-English-speaking environments	100.0	52.2	3.8	44.0	100.0	51.5	5.6	42.9	100.0	53.7	-	46.3
Remedial training in special subject areas	100.0	57.4	7.2	35.4	100.0	55.6	7.9	36.5	100.0	60.1	6.1	33.8
Other resources	100.0	53.8	17.1	29.2	100.0	46.8	19.3	33.9	100.0	65.8	13.2	20.9
	Standard error of percent											
Hard of hearing	...	20.98	16.29	12.84	...	24.44	15.76	19.48	...	41.37	35.56	...
Sight saving	...	19.81	10.25	11.69	...	22.12	...	22.12	...	25.87	24.52	...
Speech therapy	...	6.47	2.27	7.19	...	10.19	3.31	10.20	...	7.24	4.73	6.86
Orthopedic handicap	...	14.73	8.03	14.58	...	36.95	34.68	36.74	...	22.36	...	...
Gifted	...	2.89	1.51	2.36	...	3.10	1.76	2.48	...	3.82	2.33	3.49
Slow learner (not mentally retarded)	...	4.14	1.91	3.88	...	5.14	1.38	4.56	...	4.85	3.76	4.38
Mentally retarded	...	4.38	1.95	3.81	...	5.53	2.25	4.72	...	8.06	4.13	6.98
Emotionally disturbed	...	7.40	6.16	6.21	...	7.79	5.84	6.78	...	18.88	18.25	7.43
Remedial reading	...	3.33	1.94	3.17	...	3.56	2.00	3.64	...	4.21	2.39	3.49
English for youths from non-English-speaking environments	...	14.89	3.94	14.97	...	20.49	5.64	20.11	...	17.85	...	17.85
Remedial training in special subject areas	...	7.64	2.38	7.87	...	8.09	3.05	7.91	...	11.28	3.65	10.82
Other resources	...	7.87	4.93	6.20	...	8.43	5.75	8.99	...	9.39	7.98	6.90

Table 7. Percent distribution of youths 12-17 years of age by level of intellectual ability and academic performance, according to age and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Intellectual ability					Academic standing				
	Total	Above average	Average	Below average	No basis for judging	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	No basis for judging
	Percent distribution									
All ages, both sexes										
Total, 12-17 years	100.0	27.7	50.4	19.5	2.4	100.0	26.2	39.5	28.9	5.4
12 years	100.0	27.1	51.2	20.0	1.8	100.0	28.7	40.1	26.1	5.2
13 years	100.0	28.1	48.0	20.7	3.2	100.0	27.4	38.9	28.0	5.7
14 years	100.0	26.5	51.3	19.7	2.5	100.0	26.3	40.7	27.9	5.1
15 years	100.0	25.9	49.3	21.8	3.0	100.0	22.6	38.3	32.1	7.0
16 years	100.0	30.0	50.8	16.5	2.6	100.0	25.6	39.3	29.2	5.9
17 years	100.0	29.2	51.8	17.6	1.3	100.0	26.4	39.7	30.6	3.3
Boys										
Total, 12-17 years	100.0	24.9	49.9	23.0	2.3	100.0	21.9	37.9	35.2	5.0
12 years	100.0	24.0	50.0	23.8	2.2	100.0	23.7	40.2	31.0	5.1
13 years	100.0	27.0	46.8	23.6	2.5	100.0	24.6	37.2	33.8	4.4
14 years	100.0	24.7	48.6	24.5	2.2	100.0	21.5	39.3	33.8	5.4
15 years	100.0	24.4	50.5	22.9	2.2	100.0	22.0	35.1	37.3	5.7
16 years	100.0	26.0	50.9	20.4	2.8	100.0	20.2	37.8	36.3	5.7
17 years	100.0	22.9	53.4	22.0	1.7	100.0	18.4	37.8	40.3	3.5
Girls										
Total, 12-17 years	100.0	30.7	50.8	15.9	2.6	100.0	30.7	41.1	22.4	5.8
12 years	100.0	30.3	52.4	15.9	1.4	100.0	34.0	39.9	20.9	5.2
13 years	100.0	29.2	49.2	17.7	3.8	100.0	30.3	40.7	22.0	7.0
14 years	100.0	28.4	54.0	14.7	2.9	100.0	31.3	42.1	21.8	4.8
15 years	100.0	27.5	48.1	20.6	3.8	100.0	23.2	41.7	26.8	8.3
16 years	100.0	34.2	50.8	12.5	2.4	100.0	31.1	40.9	21.9	6.2
17 years	100.0	35.7	50.3	13.1	0.9	100.0	34.5	41.6	20.7	3.2
Standard error										
Both sexes	...	1.25	0.95	0.89	0.21	...	0.88	0.57	1.08	0.55
Boys	...	1.16	1.10	1.10	0.23	...	1.02	0.97	1.18	0.62
Girls	...	1.59	1.39	0.93	0.33	...	1.19	0.82	1.09	0.64

Table 8. Mean raw scores and standard deviations of scores on the Vocabulary subtest of the WISC for youths 12-17 years of age, by level of intellectual ability, sex, and age: United States, 1966-70

Sex and age	Mean raw score, all youths	Intellectual ability									
		Above average	Average	Below average	No basis for judging	Unknown	Above average	Average	Below average	No basis for judging	Unknown
		Mean raw score					Standard deviation				
Boys											
12 years	37.8	45.6	37.9	30.3	38.2	36.7	7.40	8.47	8.23	6.33	7.94
13 years	40.3	49.5	40.4	31.2	40.1	39.7	7.89	9.03	8.73	10.01	15.53
14 years	42.0	51.5	42.0	33.5	37.0	38.9	8.03	8.61	9.48	6.76	5.12
15 years	43.5	54.0	43.7	34.3	42.7	39.9	7.07	9.15	8.12	10.55	7.07
16 years	45.1	54.6	46.2	36.5	39.3	40.3	7.86	8.85	9.53	10.71	11.51
17 years	45.2	55.8	46.7	36.9	43.4	46.0	6.89	9.37	9.29	5.17	. . .
Girls											
12 years	35.2	41.9	34.2	27.1	29.0	36.7	7.20	7.32	8.01	6.89	4.99
13 years	37.3	44.4	37.1	27.1	33.9	27.0	7.27	8.75	8.48	9.62	2.00
14 years	39.7	47.3	39.4	28.6	39.0	29.6	8.34	8.86	8.07	10.34	10.12
15 years	40.9	50.7	40.5	30.5	37.4	25.0	8.64	8.46	8.78	11.15	. . .
16 years	43.7	51.8	42.8	32.6	45.8	. . .	8.38	8.24	9.62	9.18	. . .
17 years	45.3	53.6	45.1	36.3	36.4	38.0	7.79	8.43	9.68	14.35	3.46

Table 9. Mean raw scores and standard deviations of scores on the Block Design subtest of the WISC for youths 12-17 years of age, by level of intellectual ability, sex, and age: United States, 1966-70

Sex and age	Mean raw score, all youths	Intellectual ability									
		Above average	Average	Below average	No basis for judging	Unknown	Above average	Average	Below average	No basis for judging	Unknown
		Mean raw score					Standard deviation				
Boys											
12 years	25.6	34.9	24.9	18.6	20.4	27.4	11.03	11.98	10.74	9.59	9.80
13 years	27.7	35.3	27.0	20.6	26.1	34.1	10.89	13.02	11.82	13.18	14.15
14 years	30.8	40.0	30.6	22.9	25.1	26.5	10.44	12.50	13.65	13.96	2.70
15 years	31.3	39.1	32.0	23.4	26.0	41.1	10.89	12.16	12.13	14.27	7.45
16 years	34.2	42.5	35.0	25.9	29.7	34.2	9.13	12.63	13.35	13.83	15.36
17 years	33.9	41.6	35.4	27.8	33.6	11.7	9.64	12.70	13.42	12.10	0.96
Girls											
12 years	22.4	29.9	20.9	14.0	20.1	32.9	12.58	11.79	9.09	11.52	2.00
13 years	25.0	32.6	24.0	15.7	23.0	8.0	12.03	12.87	10.09	12.51	2.00
14 years	27.6	36.8	26.3	19.5	26.5	10.4	11.18	12.19	11.68	12.46	7.03
15 years	27.7	36.1	28.2	17.7	22.0	32.0	12.14	12.63	11.32	13.06	. . .
16 years	29.4	37.2	29.0	16.9	26.6	. . .	11.23	13.08	11.49	17.15	. . .
17 years	32.0	40.2	31.2	25.8	28.7	18.0	10.93	12.65	12.61	7.68	13.85

Table 10. Percent distribution of youths 12-17 years of age by level of intellectual ability, according to attendance, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Good attendance				Poor attendance			
	Total	Above-average ability	Average ability	Below-average ability	Total	Above-average ability	Average ability	Below-average ability
	Percent distribution							
All ages, both sexes								
Total, 12-17 years	100.0	30.9	51.3	17.8	100.0	13.6	54.1	32.4
12 years	100.0	28.9	52.1	18.9	100.0	15.8	52.6	31.6
13 years	100.0	30.5	49.4	20.1	100.0	15.2	54.6	30.2
14 years	100.0	30.4	52.2	17.4	100.0	10.4	53.6	36.0
15 years	100.0	29.8	50.4	19.8	100.0	10.9	54.5	34.6
16 years	100.0	34.1	51.6	14.3	100.0	15.4	52.3	32.3
17 years	100.0	32.8	52.2	15.0	100.0	15.0	56.2	28.8
Boys								
Total, 12-17 years	100.0	27.6	51.2	21.3	100.0	11.3	52.7	36.1
12 years	100.0	26.3	51.2	22.5	100.0	6.7	55.1	38.2
13 years	100.0	29.2	48.2	22.6	100.0	12.8	52.0	35.2
14 years	100.0	27.6	49.8	22.6	100.0	10.4	50.0	39.6
15 years	100.0	26.7	52.6	20.7	100.0	12.4	52.0	35.6
16 years	100.0	28.7	52.8	18.5	100.0	16.2	46.6	37.3
17 years	100.0	26.8	53 4	19.8	100.0	8.1	59.9	32.0
Girls								
Total, 12-17 years	100.0	34.4	51.4	14.1	100.0	15.7	55.3	29.0
12 years	100.0	31.7	53.0	15.2	100.0	22.7	50.7	26.6
13 years	100.0	31.8	50.7	17.5	100.0	17.0	56.7	26.4
14 years	100.0	33.4	54.8	11.7	100.0	10.4	57.1	32.5
15 years	100.0	33.0	48.1	18.9	100.0	9.5	56.8	33.7
16 years	100.0	39.8	50.3	9.9	100.0	14.8	57.4	27.8
17 years	100.0	38.6	51.0	10.3	100.0	23.1	51.9	25.0
Standard error								
Both sexes	...	1.40	1.14	0.78	...	1.88	2.45	2.37
Boys	...	1.19	1.26	0.90	...	2.00	3.42	3.54
Girls	...	1.93	1.60	0.98	...	2.43	2.61	2.59

Table 11. Mean raw scores and standard deviations of scores on the Reading subtest of the WRAT for youths 12-17 years of age, by level of academic performance, sex, and age: United States, 1966-70

Age and sex	Mean raw score, all youths	Academic performance									
		Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	No basis for judging	Unknown	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	No basis for judging	Unknown
		Mean raw score					Standard deviation				
Boys											
12 years	41.1	50.8	41.9	33.6	39.1	32.2	10.83	9.71	9.36	11.04	10.85
13 years	44.6	54.0	46.8	36.3	45.1	25.7	10.46	11.25	11.38	10.81	10.74
14 years	47.0	56.0	50.0	37.4	51.5	44.6	10.03	10.88	11.38	14.05	12.11
15 years	48.9	61.5	51.1	41.5	46.3	39.8	8.33	11.25	12.96	12.33	11.92
16 years	51.3	62.8	54.1	45.2	49.3	80.0	10.86	10.18	11.86	12.98	...
17 years	51.6	63.9	55.4	46.5	54.0	56.1	9.94	11.23	13.31	12.96	6.31
Girls											
12 years	43.1	49.5	42.5	34.7	43.2	37.3	10.03	9.23	9.09	10.77	11.85
13 years	46.0	53.0	45.3	37.5	48.3	37.5	9.96	10.20	10.00	12.92	12.72
14 years	49.4	56.7	48.6	42.3	48.2	31.7	10.06	10.49	10.78	9.13	16.22
15 years	50.8	60.4	52.6	41.3	50.2	49.8	9.98	9.96	11.71	12.28	18.90
16 years	54.4	62.1	54.9	48.2	52.3	59.2	10.80	9.98	12.03	12.90	7.49
17 years	55.8	66.2	55.2	48.7	52.9	46.8	9.72	11.70	11.82	16.86	10.34

Table 12. Mean raw scores and standard deviations of scores on the Arithmetic subtest of the WRAT for youths 12-17 years of age, by level of academic performance, sex, and age: United States, 1966-70

Sex and age	Mean raw score, all youths	Academic performance									
		Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	No basis for judging	Unknown	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	No basis for judging	Unknown
		Mean raw score					Standard deviation				
Boys											
12 years	19.1	23.0	19.5	16.3	17.8	16.1	5.24	4.32	3.93	4.28	4.68
13 years	21.1	26.3	21.7	17.2	22.1	12.5	5.97	5.45	4.69	6.14	7.41
14 years	23.0	29.0	23.9	18.9	22.5	18.8	5.48	5.09	5.72	6.44	5.63
15 years	24.1	29.6	25.5	20.4	22.6	19.4	4.20	5.29	6.05	6.89	3.24
16 years	25.8	32.7	28.0	22.0	23.4	38.0	5.44	5.72	6.05	5.07	...
17 years	25.6	34.1	26.9	23.0	26.6	30.0	6.57	6.33	6.15	6.73	2.47
Girls											
12 years	19.3	22.1	19.0	15.6	19.5	17.0	4.46	4.71	3.59	4.71	4.18
13 years	21.1	24.7	21.0	16.4	20.0	15.9	5.11	4.55	3.80	5.76	4.64
14 years	23.0	27.7	22.2	19.0	22.4	20.1	6.19	5.00	4.60	6.05	5.18
15 years	23.9	29.9	24.0	19.3	23.3	21.8	5.61	5.13	5.55	7.88	5.90
16 years	25.3	30.1	25.4	20.9	24.1	31.8	5.32	5.79	5.27	7.31	4.00
17 years	25.8	31.9	25.3	21.9	23.0	24.6	6.42	5.46	5.31	9.73	3.91

Table 13. Percent distribution of youths 12-17 years of age by level of academic performance, according to attendance, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Good attendance				Poor attendance			
	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class
	Percent distribution							
All ages, both sexes								
Total, 12-17 years	100.0	30.5	43.3	26.2	100.0	10.6	31.9	57.5
12 years	100.0	31.6	43.0	25.4	100.0	15.1	36.7	48.3
13 years	100.0	30.1	42.6	27.3	100.0	18.7	32.6	48.6
14 years	100.0	31.1	43.9	25.1	100.0	8.5	36.3	55.1
15 years	100.0	28.6	42.3	29.1	100.0	6.0	29.2	64.8
16 years	100.0	30.6	44.7	24.7	100.0	9.3	26.9	63.7
17 years	100.0	30.8	43.4	25.8	100.0	10.2	32.8	57.0
Boys								
Total, 12-17 years	100.0	25.7	41.7	32.6	100.0	6.0	28.0	66.0
12 years	100.0	26.6	43.4	30.0	100.0	4.8	34.8	60.3
13 years	100.0	27.3	40.2	32.5	100.0	11.1	30.1	58.7
14 years	100.0	25.0	42.2	32.8	100.0	8.0	34.8	57.2
15 years	100.0	27.3	38.3	34.3	100.0	4.2	24.3	71.5
16 years	100.0	24.1	44.1	31.8	100.0	5.3	19.7	75.0
17 years	100.0	22.6	42.1	35.4	100.0	4.3	29.8	65.9
Girls								
Total, 12-17 years	100.0	35.6	45.0	19.4	100.0	14.9	35.3	49.8
12 years	100.0	36.9	42.6	20.5	100.0	22.8	38.0	39.1
13 years	100.0	33.2	45.2	21.7	100.0	24.7	34.6	40.7
14 years	100.0	37.5	45.7	16.8	100.0	9.0	37.6	53.4
15 years	100.0	29.9	46.7	23.4	100.0	7.7	33.6	58.7
16 years	100.0	37.6	45.4	17.1	100.0	12.9	33.4	53.6
17 years	100.0	38.7	44.7	16.6	100.0	17.2	36.2	46.6
Standard error								
Both sexes	...	0.95	0.71	0.98	...	1.66	1.78	2.20
Boys	...	0.95	1.15	0.92	...	1.93	2.29	2.79
Girls	...	1.49	0.96	1.20	...	2.08	2.78	2.86

Table 14. Percent of youths 12-17 years of age who repeated grades and percent distribution of those repeating grades by reason for repeating, according to level of academic performance and sex, and standard error of percent by sex: United States, 1966-70

Sex and academic performance	Percent who had repeated grades	Reason for repeating							
		All reasons	Academic failure	Social immaturity	Truancy	Excessive absence, other	Changed schools	Other reasons	Combinations of reasons
Both sexes	Percent distribution								
Total, 12-17 years . .	15.8	100.0	50.1	8.0	1.4	7.4	2.8	13.3	16.9
Upper 1/3 in class	3.1	100.0	34.8	1.9	2.7	14.0	7.5	29.4	9.8
Middle 1/3 in class	9.4	100.0	47.8	8.5	-	8.1	4.3	18.0	13.5
Lower 1/3 in class	34.4	100.0	52.2	8.4	1.8	6.7	1.9	10.2	18.8
Boys									
Total, 12-17 years . .	19.6	100.0	50.5	8.4	1.6	5.1	3.1	11.9	19.3
Upper 1/3 in class	3.7	100.0	43.0	3.7	-	6.5	10.1	22.1	14.6
Middle 1/3 in class	11.3	100.0	48.3	6.7	-	6.7	5.7	15.8	16.9
Lower 1/3 in class	37.2	100.0	51.8	9.2	2.3	4.5	1.9	10.0	20.4
Girls									
Total, 12-17 years . .	11.9	100.0	49.3	7.4	1.0	11.6	2.3	15.7	12.6
Upper 1/3 in class	2.6	100.0	26.2	-	5.5	21.8	4.8	37.0	4.7
Middle 1/3 in class	7.7	100.0	47.1	11.0	-	10.0	2.3	20.9	8.6
Lower 1/3 in class	29.8	100.0	53.2	6.6	0.9	11.2	2.0	10.7	15.5
Standard error									
Both sexes, total . . .	1.02	. . .	2.95	1.90	0.48	1.05	0.66	1.14	1.59
Boys, total	1.12	. . .	3.01	1.93	0.68	0.94	1.15	1.51	2.14
Girls, total	1.10	. . .	3.39	2.46	0.57	2.70	0.93	2.39	2.12

Table 15. Percent distribution of youths 12-17 years of age by level of academic performance, according to level of intellectual ability, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Above-average ability				Average ability				Below-average ability			
	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	76.4	20.8	2.8	100.0	11.2	65.4	23.4	100.0	1.4	10.4	88.2
12 years	100.0	83.5	14.7	1.8	100.0	13.5	68.2	18.2	100.0	2.1	11.5	86.4
13 years	100.0	78.0	20.2	1.9	100.0	13.0	66.7	20.4	100.0	1.4	9.0	89.6
14 years	100.0	79.0	18.9	2.1	100.0	11.4	66.5	22.0	100.0	1.7	11.3	87.0
15 years	100.0	75.0	20.9	4.2	100.0	7.2	66.7	26.1	100.0	2.0	10.9	87.0
16 years	100.0	68.5	27.2	4.3	100.0	11.4	61.6	27.0	100.0	0.5	7.7	91.7
17 years	100.0	74.1	23.1	2.7	100.0	9.9	61.5	28.6	100.0	-	11.4	88.6
Boys												
Total, 12-17 years	100.0	70.9	25.0	4.1	100.0	9.4	62.0	28.6	100.0	0.8	8.7	90.6
12 years	100.0	75.2	22.5	2.3	100.0	11.9	67.2	20.9	100.0	1.4	10.0	88.5
13 years	100.0	72.5	24.6	3.0	100.0	11.4	61.4	27.1	100.0	1.5	9.8	88.7
14 years	100.0	75.6	21.4	3.0	100.0	7.3	69.0	23.6	100.0	0.7	5.7	93.6
15 years	100.0	75.2	19.1	5.7	100.0	8.0	59.8	32.2	100.0	0.8	9.7	89.5
16 years	100.0	63.9	29.9	6.2	100.0	8.3	60.1	31.6	100.0	-	4.4	95.6
17 years	100.0	60.3	34.5	5.2	100.0	8.8	52.9	38.3	100.0	-	12.0	88.0
Girls												
Total, 12-17 years	100.0	81.1	17.2	1.7	100.0	13.0	68.8	18.2	100.0	2.3	13.0	84.7
12 years	100.0	90.6	8.0	1.3	100.0	15.1	69.3	15.6	100.0	3.2	13.8	83.0
13 years	100.0	83.2	16.0	0.8	100.0	14.4	71.8	13.8	100.0	1.2	7.8	90.9
14 years	100.0	82.0	16.7	1.3	100.0	15.2	64.2	20.6	100.0	3.5	20.9	75.6
15 years	100.0	74.7	22.5	2.8	100.0	6.3	74.3	19.4	100.0	3.5	12.3	84.2
16 years	100.0	72.2	25.0	2.8	100.0	14.6	63.2	22.2	100.0	1.5	13.4	85.1
17 years	100.0	83.5	15.4	1.1	100.0	11.0	70.8	18.2	100.0	-	10.3	89.7
Standard error												
Both sexes	...	1.45	1.24	0.51	...	0.73	1.31	1.06	...	0.27	0.83	0.98
Boys	...	2.12	1.82	0.83	...	0.92	1.40	1.10	...	0.21	0.96	0.99
Girls	...	1.38	1.41	0.46	...	1.06	1.82	1.57	...	0.69	1.58	1.75

Table 16. Percent distribution of youths 12-17 years of age by level of adjustment to school environment and peer group relations, according to age and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	School adjustment					Peer group relations				
	Total	Well adjusted	Somewhat maladjusted	Seriously maladjusted	No basis for judging	Total	Above average	Average	Below average	No basis for judging
All ages, both sexes	Percent distribution									
Total, 12-17 years	100.0	76.8	14.1	1.4	7.7	100.0	12.4	64.0	10.4	13.3
12 years	100.0	78.7	14.6	0.8	5.8	100.0	13.6	67.6	10.4	8.4
13 years	100.0	74.5	16.0	1.5	8.0	100.0	11.0	67.1	11.4	10.6
14 years	100.0	75.6	15.3	1.1	7.9	100.0	10.9	64.7	9.6	14.7
15 years	100.0	74.0	14.0	2.5	9.5	100.0	10.9	60.6	11.4	17.1
16 years	100.0	79.4	11.6	1.2	7.8	100.0	10.6	63.7	8.5	17.2
17 years	100.0	78.8	12.5	1.1	7.6	100.0	18.0	59.0	10.9	12.2
Boys										
Total, 12-17 years	100.0	73.8	16.9	1.8	7.6	100.0	10.5	65.8	10.6	13.2
12 years	100.0	73.2	18.9	1.0	6.9	100.0	11.5	67.8	12.4	8.3
13 years	100.0	71.3	19.1	2.2	7.4	100.0	9.3	69.0	11.1	10.6
14 years	100.0	72.4	19.1	1.6	6.9	100.0	9.8	66.8	9.9	13.5
15 years	100.0	74.6	14.7	3.3	7.5	100.0	10.8	63.4	9.9	15.9
16 years	100.0	77.2	12.7	1.1	8.9	100.0	8.5	65.1	8.0	18.4
17 years	100.0	74.7	15.9	1.4	8.0	100.0	13.1	61.5	11.9	13.5
Girls										
Total, 12-17 years	100.0	79.8	11.3	1.0	7.9	100.0	14.4	62.1	10.2	13.3
12 years	100.0	84.5	10.2	0.6	4.6	100.0	15.7	67.4	8.3	8.5
13 years	100.0	77.7	12.9	0.8	8.6	100.0	12.7	65.1	11.7	10.5
14 years	100.0	79.0	11.4	0.6	9.1	100.0	12.1	62.4	9.4	16.0
15 years	100.0	73.3	13.4	1.7	11.5	100.0	11.1	57.6	12.9	18.4
16 years	100.0	81.6	10.4	1.3	6.7	100.0	12.8	62.3	8.9	15.9
17 years	100.0	83.0	9.1	0.8	7.1	100.0	22.8	56.4	9.8	11.0
Standard error										
Both sexes	...	0.67	0.45	0.17	0.61	...	0.68	1.12	0.50	0.93
Boys	...	0.87	0.73	0.18	0.59	...	0.73	1.34	0.52	1.06
Girls	...	0.87	0.67	0.23	0.89	...	0.89	1.27	0.80	1.02

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Table 17. Percent distribution of youths 12-17 years of age by peer group relations, according to level of intellectual ability, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Above-average ability				Average ability				Below-average ability			
	Total	Above-average popularity	Average popularity	Below-average popularity	Total	Above-average popularity	Average popularity	Below-average popularity	Total	Above-average popularity	Average popularity	Below-average popularity
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	31.3	64.7	3.9	100.0	8.9	81.3	9.8	100.0	4.0	66.8	29.2
12 years	100.0	34.8	63.0	2.2	100.0	9.4	80.9	9.7	100.0	3.1	69.5	27.4
13 years	100.0	25.2	70.0	4.8	100.0	7.0	82.1	10.9	100.0	6.7	65.7	27.6
14 years	100.0	26.0	69.7	4.2	100.0	9.3	80.8	9.8	100.0	3.2	71.9	24.8
15 years	100.0	29.9	66.1	4.0	100.0	8.2	82.3	9.5	100.0	5.5	59.1	35.5
16 years	100.0	30.0	66.5	3.4	100.0	6.9	84.3	8.9	100.0	-	73.2	26.8
17 years	100.0	43.4	51.4	5.2	100.0	12.6	77.4	9.9	100.0	3.4	62.4	34.3
Boys												
Total, 12-17 years	100.0	29.3	66.8	3.9	100.0	7.7	83.2	9.0	100.0	3.5	69.3	27.2
12 years	100.0	33.8	64.4	1.8	100.0	8.2	81.2	10.7	100.0	1.7	68.0	30.3
13 years	100.0	22.5	72.5	5.0	100.0	5.7	84.7	9.6	100.0	6.7	68.0	25.3
14 years	100.0	26.2	67.5	6.3	100.0	8.0	84.1	7.9	100.0	3.0	73.7	23.3
15 years	100.0	32.5	65.3	2.2	100.0	7.8	85.3	6.8	100.0	4.8	64.5	30.7
16 years	100.0	27.7	69.4	2.9	100.0	6.0	85.8	8.2	100.0	-	79.0	21.0
17 years	100.0	35.8	59.0	5.2	100.0	10.5	78.7	10.7	100.0	3.9	63.1	32.9
Girls												
Total, 12-17 years	100.0	33.0	63.1	3.9	100.0	10.1	79.4	10.6	100.0	4.7	62.9	32.3
12 years	100.0	35.6	62.0	2.4	100.0	10.7	80.6	8.7	100.0	5.4	71.7	22.9
13 years	100.0	27.6	67.9	4.5	100.0	8.3	79.6	12.1	100.0	6.8	62.5	30.7
14 years	100.0	25.9	71.8	2.4	100.0	10.6	77.8	11.6	100.0	3.7	68.5	27.8
15 years	100.0	27.7	66.8	5.5	100.0	8.5	79.1	12.4	100.0	6.3	51.6	42.1
16 years	100.0	31.9	64.3	3.8	100.0	7.7	82.8	9.5	100.0	-	62.0	38.0
17 years	100.0	48.3	46.6	5.1	100.0	15.0	76.0	9.1	100.0	2.5	61.2	36.4
Standard error												
Both sexes	...	1.70	1.43	0.60	...	0.60	0.86	0.78	...	0.58	2.10	1.91
Boys	...	2.41	2.38	0.57	...	0.57	0.70	0.87	...	0.82	2.26	1.79
Girls	...	1.94	1.76	1.02	...	1.08	1.32	1.10	...	1.21	3.34	3.10

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Table 18. Percent distribution of youths 12-17 years of age by peer group relations, according to level of academic performance, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Upper 1/3 in class				Middle 1/3 in class				Lower 1/3 in class			
	Total	Above-average popularity	Average popularity	Below-average popularity	Total	Above-average popularity	Average popularity	Below-average popularity	Total	Above-average popularity	Average popularity	Below-average popularity
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	33.0	64.5	2.5	100.0	9.6	83.4	7.0	100.0	3.8	68.1	28.1
12 years	100.0	33.9	64.1	2.0	100.0	10.2	82.0	7.7	100.0	2.2	70.4	27.4
13 years	100.0	26.7	69.9	3.4	100.0	6.9	85.2	7.9	100.0	5.2	65.3	29.5
14 years	100.0	28.1	69.6	2.3	100.0	9.6	83.4	7.0	100.0	3.5	69.4	27.1
15 years	100.0	33.3	64.7	2.0	100.0	7.8	86.2	6.0	100.0	5.3	63.2	31.5
16 years	100.0	32.1	65.6	2.2	100.0	8.3	86.4	5.3	100.0	1.8	74.2	24.1
17 years	100.0	47.1	50.2	2.7	100.0	15.0	77.1	7.9	100.0	4.5	67.1	28.3
Boys												
Total, 12-17 years	100.0	3.26	64.9	2.5	100.0	8.6	84.4	7.0	100.0	3.5	72.0	24.5
12 years	100.0	32.9	64.8	2.2	100.0	9.4	80.8	9.8	100.0	2.4	70.9	26.7
13 years	100.0	23.9	71.5	4.6	100.0	5.7	87.1	7.2	100.0	5.8	69.2	25.0
14 years	100.0	30.3	67.7	1.9	100.0	9.0	83.8	7.2	100.0	2.7	74.0	23.3
15 years	100.0	39.8	59.5	0.6	100.0	5.8	90.9	3.3	100.0	4.9	68.5	26.5
16 years	100.0	32.9	63.5	3.6	100.0	6.9	90.2	2.9	100.0	1.5	77.7	20.7
17 years	100.0	40.7	58.2	1.1	100.0	15.1	74.8	10.1	100.0	3.5	72.3	24.2
Girls												
Total, 12-17 years	100.0	33.3	64.3	2.4	100.0	10.5	82.4	7.1	100.0	4.2	61.7	34.1
12 years	100.0	34.7	63.5	1.8	100.0	11.1	83.3	5.5	100.0	1.8	69.8	28.4
13 years	100.0	28.9	68.6	2.5	100.0	8.0	83.4	8.7	100.0	4.3	59.2	36.5
14 years	100.0	26.5	71.0	2.5	100.0	10.2	83.1	6.7	100.0	4.9	61.7	33.5
15 years	100.0	27.3	69.3	3.3	100.0	9.6	82.1	8.3	100.0	6.0	54.6	39.5
16 years	100.0	31.6	67.0	1.4	100.0	9.7	82.7	7.6	100.0	2.2	67.8	29.9
17 years	100.0	50.4	46.1	3.5	100.0	14.8	79.4	5.8	100.0	6.5	57.4	36.1
Standard error												
Both sexes	....	2.07	1.88	0.47	....	0.75	1.00	0.83	....	0.49	1.75	1.58
Boys	....	3.05	2.87	0.57	....	0.83	1.05	0.97	....	0.67	1.91	1.54
Girls	....	2.94	1.98	0.79	....	0.92	1.14	1.03	....	0.97	3.09	2.77

Table 19. Percent distribution of youths 12-17 years of age by peer group relations, according to school attendance, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Good attendance				Poor attendance			
	Total	Above-average popularity	Average popularity	Below-average popularity	Total	Above-average popularity	Average popularity	Below-average popularity
	Percent distribution							
All ages, both sexes								
Total, 12-17 years	100.0	15.5	75.3	9.2	100.0	6.9	63.5	29.6
12 years	100.0	15.8	74.7	9.5	100.0	6.1	64.4	29.5
13 years	100.0	12.7	76.2	11.1	100.0	8.8	64.8	26.4
14 years	100.0	14.3	76.8	8.9	100.0	4.8	69.5	25.6
15 years	100.0	15.0	75.4	9.6	100.0	6.6	60.4	33.0
16 years	100.0	13.6	80.1	6.3	100.0	6.2	61.4	32.4
17 years	100.0	23.0	67.9	9.0	100.0	8.5	61.6	29.9
Boys								
Total, 12-17 years	100.0	13.1	77.6	9.3	100.0	6.1	64.3	29.6
12 years	100.0	13.6	75.4	10.9	100.0	3.9	58.1	38.0
13 years	100.0	10.3	78.7	11.0	100.0	11.9	62.4	25.7
14 years	100.0	12.6	79.1	8.3	100.0	3.8	66.3	29.8
15 years	100.0	14.0	77.7	8.3	100.0	9.7	64.7	25.6
16 years	100.0	11.7	82.6	5.7	100.0	1.8	65.6	32.6
17 years	100.0	17.8	71.8	10.4	100.0	5.7	65.8	28.5
Girls								
Total, 12-17 years	100.0	18.0	72.9	9.1	100.0	7.±	62.8	29.7
12 years	100.0	18.0	74.0	8.0	100.0	8.3	70.4	21.3
13 years	100.0	15.3	73.6	11.1	100.0	6.6	66.5	26.9
14 years	100.0	16.1	74.3	9.6	100.0	5.7	72.5	21.7
15 years	100.0	16.1	72.8	11.1	100.0	3.7	56.1	40.3
16 years	100.0	15.6	77.4	7.0	100.0	9.8	57.9	32.3
17 years	100.0	28.0	64.3	7.7	100.0	11.5	57.1	31.4
Standard error								
Both sexes	...	0.87	0.89	0.51	...	1.04	2.65	2.45
Boys	...	0.96	1.05	0.58	...	1.42	3.48	3.30
Girls	...	1.06	1.20	0.79	...	1.42	3.30	2.93

Table 20. Percent distribution of youths 12-17 years of age by frequency of disciplinary action, according to school attendance, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	All youths					Poor attendance				Good attendance			
	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	No basis for judging	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined
	Percent distribution												
All ages, both sexes													
Total, 12-17 years	100.0	65.2	22.5	3.3	8.9	100.0	54.5	34.7	10.8	100.0	74.0	23.4	2.5
12 years	100.0	62.0	26.7	3.8	7.5	100.0	60.6	30.5	8.9	100.0	67.7	28.6	3.7
13 years	100.0	61.9	25.1	3.7	9.4	100.0	55.9	32.9	11.2	100.0	69.7	27.2	3.2
14 years	100.0	61.0	26.1	3.1	9.9	100.0	52.9	33.2	13.9	100.0	69.2	28.7	2.1
15 years	100.0	66.6	19.4	3.4	10.6	100.0	52.9	37.6	9.5	100.0	78.1	19.3	2.5
16 years	100.0	71.5	18.5	2.5	7.5	100.0	59.8	29.9	10.3	100.0	81.0	17.6	1.4
17 years	100.0	70.5	17.8	3.1	8.5	100.0	47.7	41.8	10.5	100.0	82.8	15.4	1.7
Boys													
Total, 12-17 years	100.0	56.0	29.8	5.0	9.2	100.0	40.3	43.8	16.0	100.0	64.5	31.5	4.0
12 years	100.0	50.1	35.0	6.0	9.0	100.0	45.4	42.3	12.3	100.0	55.7	38.2	6.2
13 years	100.0	52.5	32.0	5.8	9.7	100.0	43.2	40.0	16.8	100.0	60.0	34.9	5.2
14 years	100.0	52.0	34.4	4.5	9.2	100.0	51.3	30.5	18.1	100.0	57.5	39.0	3.5
15 years	100.0	61.0	25.1	4.3	9.6	100.0	34.8	51.5	13.7	100.0	72.4	24.7	2.8
16 years	100.0	63.9	23.6	3.8	8.7	100.0	44.6	37.6	17.7	100.0	74.8	23.0	2.1
17 years	100.0	58.4	26.9	5.7	9.1	100.0	28.3	55.9	15.9	100.0	72.0	24.4	3.6
Girls													
Total, 12-17 years	100.0	74.8	15.1	1.5	8.6	100.0	67.2	26.6	6.2	100.0	83.9	15.0	1.0
12 years	100.0	74.6	17.9	1.6	5.9	100.0	71.0	22.5	6.6	100.0	80.1	18.6	1.2
13 years	100.0	71.3	18.1	1.6	9.0	100.0	65.4	27.6	7.0	100.0	79.7	19.2	1.1
14 years	100.0	70.3	17.5	1.6	10.6	100.0	54.3	35.6	10.1	100.0	81.9	17.5	0.6
15 years	100.0	72.4	13.5	2.5	11.7	100.0	69.8	24.6	5.6	100.0	84.3	13.5	2.2
16 years	100.0	79.3	13.3	1.1	6.3	100.0	72.9	23.2	3.9	100.0	87.4	11.9	0.7
17 years	100.0	82.6	8.8	0.6	8.0	100.0	69.4	26.1	4.5	100.0	93.2	6.8	-
Standard error													
Both sexes	....	0.66	0.76	0.25	0.69	....	2.09	2.16	1.28	....	0.84	0.75	0.25
Boys	....	1.19	0.97	0.45	0.79	....	3.35	2.84	1.72	....	1.32	1.16	0.48
Girls	....	0.90	1.00	0.22	0.81	....	2.86	3.05	1.34	....	1.15	1.11	0.17

Table 21. Percent distribution of youths 12-17 years of age by frequency of disciplinary action, according to level of intellectual ability, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Above-average ability				Average ability				Below-average ability			
	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	86.4	12.4	1.2	100.0	71.2	25.9	2.9	100.0	49.9	41.0	9.1
12 years	100.0	79.1	19.5	1.3	100.0	66.9	30.2	2.9	100.0	50.3	38.5	11.2
13 years	100.0	82.5	15.6	1.8	100.0	68.6	28.4	2.9	100.0	45.7	44.3	9.9
14 years	100.0	83.3	15.3	1.4	100.0	66.7	29.6	3.7	100.0	46.0	48.2	5.9
15 years	100.0	88.9	9.9	1.2	100.0	75.7	21.3	3.0	100.0	52.4	38.3	9.3
16 years	100.0	92.3	6.9	0.7	100.0	76.6	21.1	2.4	100.0	51.3	41.1	7.6
17 years	100.0	94.0	5.3	0.7	100.0	73.6	23.7	2.7	100.0	56.1	32.8	11.0
Boys												
Total, 12-17 years	100.0	79.4	18.1	2.5	100.0	61.4	34.3	4.3	100.0	41.6	46.6	11.8
12 years	100.0	69.4	27.6	3.0	100.0	55.1	41.1	3.7	100.0	39.9	43.8	16.3
13 years	100.0	73.4	22.8	3.8	100.0	58.7	36.4	4.9	100.0	36.9	50.4	12.7
14 years	100.0	76.3	20.6	3.1	100.0	56.8	37.5	5.7	100.0	36.8	57.4	5.8
15 years	100.0	82.9	15.5	1.5	100.0	71.3	25.3	3.4	100.0	42.9	46.1	11.1
16 years	100.0	89.8	8.4	1.8	100.0	68.8	28.2	3.0	100.0	48.4	41.0	10.6
17 years	100.0	89.7	9.3	1.1	100.0	58.5	36.4	5.1	100.0	48.9	35.4	15.7
Girls												
Total, 12-17 years	100.0	92.0	7.8	0.2	100.0	81.0	17.4	1.5	100.0	62.0	32.7	5.3
12 years	100.0	86.9	13.1	-	100.0	78.7	19.3	2.0	100.0	65.1	30.9	4.0
13 years	100.0	91.2	8.6	-	100.0	78.0	21.0	1.1	100.0	56.8	36.8	6.5
14 years	100.0	89.4	10.6	-	100.0	76.3	21.9	1.8	100.0	62.6	31.5	5.9
15 years	100.0	94.6	4.6	0.8	100.0	80.5	17.0	2.5	100.0	64.6	28.3	7.1
16 years	100.0	94.1	5.9	-	100.0	84.6	13.7	1.7	100.0	56.0	41.3	2.7
17 years	100.0	96.7	2.8	0.5	100.0	90.5	9.5	-	100.0	67.4	28.8	3.9
Standard error												
Both sexes	....	1.13	0.98	0.40	....	0.76	0.63	0.31	....	2.19	2.12	1.10
Boys	....	2.03	1.82	0.86	....	1.41	1.26	0.50	....	2.25	2.25	1.46
Girls	....	1.28	1.30	0.13	....	1.07	0.95	0.30	....	3.12	3.36	1.20

Table 22. Percent distribution of youths 12-17 years of age by frequency of disciplinary action, according to level of academic performance, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Upper 1/3 in class				Middle 1/3 in class				Lower 1/3 in class			
	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	87.7	12.1	0.1	100.0	76.3	22.2	1.4	100.0	49.8	40.2	10.0
12 years	100.0	77.7	21.8	0.4	100.0	70.9	26.6	2.4	100.0	49.8	39.6	10.6
13 years	100.0	84.7	15.3	-	100.0	72.5	25.8	1.7	100.0	45.6	42.5	11.9
14 years	100.0	83.9	15.8	0.4	100.0	71.9	26.5	1.6	100.0	44.6	46.3	9.1
15 years	100.0	91.9	8.1	-	100.0	82.0	17.1	1.0	100.0	53.6	36.3	10.2
16 years	100.0	96.3	3.7	-	100.0	81.4	17.9	0.8	100.0	53.3	38.5	8.2
17 years	100.0	96.7	3.3	-	100.0	81.5	17.4	1.1	100.0	52.3	37.8	9.9
Boys												
Total, 12-17 years	100.0	82.6	17.1	0.3	100.0	67.3	30.7	2.0	100.0	41.5	45.6	12.9
12 years	100.0	68.5	30.5	1.0	100.0	59.0	37.7	3.3	100.0	40.0	45.5	14.5
13 years	100.0	77.4	22.6	-	100.0	62.9	35.0	2.0	100.0	37.2	46.4	16.4
14 years	100.0	80.1	19.1	0.9	100.0	60.0	37.7	2.3	100.0	37.6	51.5	10.9
15 years	100.0	88.9	11.1	-	100.0	77.1	21.2	1.6	100.0	46.3	42.8	10.9
16 years	100.0	94.1	5.9	-	100.0	78.0	21.4	0.6	100.0	46.4	43.1	10.6
17 years	100.0	96.0	4.0	-	100.0	70.6	27.7	1.7	100.0	41.3	44.1	14.6
Girls												
Total, 12-17 years	100.0	91.4	8.6	-	100.0	85.0	14.1	0.9	100.0	63.0	31.7	5.3
12 years	100.0	84.6	15.4	-	100.0	83.3	15.2	1.5	100.0	63.7	31.2	5.1
13 years	100.0	90.7	9.3	-	100.0	81.3	17.4	1.3	100.0	58.1	36.6	5.3
14 years	100.0	86.5	13.5	-	100.0	84.0	15.1	0.9	100.0	55.8	38.1	6.2
15 years	100.0	94.8	5.2	-	100.0	86.1	13.5	0.4	100.0	65.2	25.9	8.9
16 years	100.0	97.7	2.3	-	100.0	84.6	14.6	0.9	100.0	65.4	30.6	3.9
17 years	100.0	97.1	2.9	-	100.0	92.0	7.4	0.5	100.0	73.1	25.9	1.0
Standard error												
Both sexes	...	1.03	1.03	0.07	...	1.28	1.10	0.30	...	2.04	1.92	0.97
Boys	...	1.76	1.77	0.16	...	2.39	2.17	0.56	...	2.48	2.35	1.31
Girls	...	1.23	1.23	-	...	1.12	1.00	0.29	...	2.36	2.46	1.00

Table 23. Percent distribution of youths 12-17 years of age by frequency of disciplinary action, according to peer group relations, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Above-average popularity				Average popularity				Below-average popularity			
	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	82.6	16.1	1.4	100.0	72.6	25.1	2.3	100.0	47.1	37.7	15.1
12 years	100.0	76.3	23.7	-	100.0	69.0	28.1	2.9	100.0	38.1	42.9	19.0
13 years	100.0	72.8	24.3	2.8	100.0	69.0	28.7	2.3	100.0	54.0	28.7	17.4
14 years	100.0	83.5	15.8	0.7	100.0	67.1	30.6	2.3	100.0	43.1	42.6	14.3
15 years	100.0	81.4	15.8	2.8	100.0	76.4	21.1	2.5	100.0	52.1	34.5	13.3
16 years	100.0	88.4	10.6	1.0	100.0	77.1	20.8	2.0	100.0	53.4	35.3	11.3
17 years	100.0	92.2	6.5	1.3	100.0	80.9	17.9	1.2	100.0	41.7	44.2	14.1
Boys												
Total, 12-17 years	100.0	73.4	24.6	2.0	100.0	6. 8	33.7	3.5	100.0	35.1	42.5	22.4
12 years	100.0	69.9	30.1	-	100.0	56.1	39.3	4.7	100.0	31.8	43.5	24.8
13 years	100.0	59.9	33.2	5.9	100.0	59.2	37.3	3.5	100.0	42.1	30.5	27.3
14 years	100.0	72.9	25.5	1.6	100.0	57.6	38.9	3.6	100.0	30.8	49.8	19.4
15 years	100.0	73.5	24.7	1.8	100.0	68.7	27.3	4.0	100.0	39.1	43.9	17.0
16 years	100.0	84.6	15.4	-	100.0	69.9	27.2	2.9	100.0	40.5	39.4	20.1
17 years	100.0	81.4	16.3	2.3	100.0	69.5	28.7	1.8	100.0	27.4	8.5	24.1
Girls												
Total, 12-17 years	100.0	89.2	9.9	0.9	100.0	83.3	15.8	0.9	100.0	59.6	32.8	7.6
12 years	100.0	81.2	18.8	-	100.0	82.6	16.4	1.0	100.0	46.5	42.2	11.3
13 years	100.0	81.8	18.2	-	100.0	79.6	19.3	1.1	100.0	66.2	26.9	7.9
14 years	100.0	92.1	7.9	-	100.0	77.6	21.5	0.9	100.0	57.0	34.4	8.6
15 years	100.0	89.2	7.1	3.7	100.0	85.2	14.0	0.8	100.0	62.3	27.2	10.5
16 years	100.0	91.0	7.4	1.6	100.0	84.8	14.1	1.1	100.0	65.4	31.4	3.1
17 years	100.0	98.3	1.0	0.7	100.0	93.3	6.2	0.5	100.0	59.2	38.9	1.9
Standard error												
Both sexes	...	1.91	1.80	0.36	...	0.91	0.91	0.23	...	2.59	2.86	2.03
Boys	...	3.18	3.13	0.69	...	1.43	1.38	0.51	...	3.01	3.55	2.61
Girls	...	1.65	1.46	0.41	...	1.21	1.19	0.22	...	4.18	4.26	1.84

Table 24. Percent distribution of youths 12-17 years of age by level of adjustment to school environment, according to attendance, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Good attendance				Poor attendance			
	Total	Well adjusted	Somewhat maladjusted	Seriously maladjusted	Total	Well adjusted	Somewhat maladjusted	Seriously maladjusted
	Percent distribution							
All ages, both sexes								
Total, 12-17 years	100.0	86.7	12.5	0.8	100.0	58.8	34.8	6.5
12 years	100.0	85.0	14.4	0.5	100.0	69.0	26.3	4.8
13 years	100.0	82.8	15.7	1.5	100.0	62.4	33.9	3.7
14 years	100.0	85.1	14.3	0.6	100.0	60.4	34.2	5.4
15 years	100.0	87.7	11.2	1.1	100.0	50.2	37.7	12.1
16 years	100.0	90.6	9.0	0.4	100.0	61.2	31.8	7.0
17 years	100.0	91.0	8.6	0.5	100.0	55.1	40.9	4.0
Boys								
Total, 12-17 years	100.0	83.4	15.6	1.1	100.0	54.4	37.4	8.2
12 years	100.0	80.2	19.1	0.7	100.0	60.5	32.2	7.3
13 years	100.0	78.4	19.3	2.3	100.0	62.3	33.6	4.1
14 years	100.0	80.7	18.6	0.7	100.0	58.8	33.0	8.2
15 years	100.0	86.3	12.4	1.2	100.0	46.5	36.3	17.2
16 years	100.0	90.0	9.5	0.5	100.0	51.9	41.5	6.7
17 years	100.0	87.5	11.8	0.7	100.0	53.1	43.6	3.3
Girls								
Total, 12-17 years	100.0	90.2	9.3	0.5	100.0	62.7	32.3	5.0
12 years	100.0	90.1	9.6	0.3	100.0	75.1	22.0	2.9
13 years	100.0	87.4	12.0	0.6	100.0	62.5	34.1	3.4
14 years	100.0	89.9	9.7	0.4	100.0	61.8	35.4	2.8
15 years	100.0	89.2	9.8	1.0	100.0	53.8	39.1	7.2
16 years	100.0	91.1	8.5	0.4	100.0	68.4	24.4	7.3
17 years	100.0	94.3	5.5	0.3	100.0	57.7	37.3	5.0
Standard error								
Both sexes	...	0.45	0.42	0.11	...	2.14	1.50	1.14
Boys	...	0.76	0.73	0.18	...	3.11	2.54	1.30
Girls	...	0.72	0.70	0.16	...	1.94	1.74	1.41

Table 25. Percent of youths 12-17 years of age for whom special resources were recommended, by level of adjustment to school environment, type of problem, and sex, and standard error of percent for both sexes: United States, 1966-70

Type of problem	Percent of youths for whom resources were recommended	Youths recommended for special resources								
		Both sexes			Boys			Girls		
		Well adjusted	Somewhat maladjusted	Seriously maladjusted	Well adjusted	Somewhat maladjusted	Seriously maladjusted	Well adjusted	Somewhat maladjusted	Seriously maladjusted
	Percent									
All special resources	16.7	11.7	37.5	65.8	13.5	40.2	69.5	10.1	33.2	58.8
Hard of hearing	0.3	0.1	0.9	0.9	0.2	1.3	1.4	0.1	0.3	-
Sight saving	0.2	0.2	0.4	-	0.2	0.5	-	0.2	0.3	-
Speech therapy	1.1	0.9	1.8	0.9	0.9	2.3	1.3	0.9	1.0	-
Orthopedic handicap	0.2	0.2	0.2	-	0.0	0.4	-	0.3	-	-
Gifted	2.8	3.3	1.1	-	3.2	0.7	-	3.4	1.7	-
Slow learner	5.3	2.9	15.0	21.5	3.6	15.7	18.4	2.2	14.0	27.3
Mentally retarded	1.3	0.9	2.9	8.9	1.3	3.5	11.8	0.6	2.1	3.3
Emotionally disturbed	1.2	0.0	4.8	35.4	0.1	6.0	33.8	0.0	2.9	38.2
Remedial reading	6.2	4.2	14.7	15.1	5.1	16.8	18.8	3.2	11.4	8.3
English for children from non-English-speaking environments	0.7	0.6	1.0	0.8	0.9	1.2	1.3	0.4	0.7	-
Remedial training in special subject areas	2.6	1.4	8.2	10.3	1.7	8.1	10.4	1.1	8.3	9.9
Other resources	1.4	0.5	4.7	14.2	0.5	5.6	17.4	0.5	3.3	8.2
Standard error, both sexes	0.63	0.59	1.44	3.76	0.83	2.30	3.71	0.67	3.27	9.78

Table 26. Percent distribution of youths 12-17 years of age by level of intellectual ability, according to level of adjustment to school environment, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Well adjusted				Somewhat maladjusted				Seriously maladjusted			
	Total	Above-average ability	Average ability	Below-average ability	Total	Above-average ability	Average ability	Below-average ability	Total	Above-average ability	Average ability	Below-average ability
All ages, both sexes	Percent distribution											
Total, 12-17 years	100.0	33.1	53.7	13.1	100.0	9.9	43.0	47.1	100.0	15.7	29.3	55.0
12 years	100.0	32.0	53.7	14.4	100.0	7.3	46.5	46.1	100.0	-	39.5	60.5
13 years	100.0	34.6	52.2	13.2	100.0	10.2	41.0	48.8	100.0	28.4	23.3	48.2
14 years	100.0	31.9	54.8	13.3	100.0	10.0	43.2	46.8	100.0	15.3	35.3	49.3
15 years	100.0	31.9	54.4	13.7	100.0	9.5	33.6	56.9	100.0	18.6	14.0	67.5
16 years	100.0	34.4	53.9	11.7	100.0	14.4	43.3	42.3	100.0	6.2	57.7	36.1
17 years	100.0	34.5	53.2	12.3	100.0	9.3	52.7	38.0	100.0	10.3	30.7	59.0
Boys												
Total, 12-17 years	100.0	30.2	53.6	16.1	100.0	9.3	42.7	48.0	100.0	19.0	24.3	56.7
12 years	100.0	30.3	53.0	16.7	100.0	6.4	45.7	47.9	100.0	-	41.7	58.3
13 years	100.0	33.1	51.8	15.1	100.0	9.8	38.5	51.7	100.0	39.0	12.8	48.2
14 years	100.0	30.8	51.8	17.4	100.0	8.6	42.4	48.9	100.0	19.6	34.0	46.3
15 years	100.0	28.8	55.9	15.4	100.0	11.1	30.6	58.3	100.0	16.0	21.0	63.1
16 years	100.0	30.1	54.2	15.8	100.0	17.4	45.9	36.7	100.0	-	33.2	66.8
17 years	100.0	28.1	55.4	16.5	100.0	4.9	55.4	39.7	100.0	16.3	22.8	60.9
Girls												
Total, 12-17 years	100.0	35.9	53.8	10.3	100.0	10.9	43.4	45.6	100.0	9.5	38.5	52.0
12 years	100.0	33.5	54.2	12.3	100.0	9.2	48.3	42.5	100.0	-	36.9	63.1
13 years	100.0	36.0	52.5	11.5	100.0	10.7	44.7	44.6	100.0	-	51.8	48.2
14 years	100.0	32.9	57.8	9.4	100.0	12.4	44.5	43.1	100.0	-	40.1	59.9
15 years	100.0	35.2	52.9	12.0	100.0	7.8	37.0	55.2	100.0	23.8	-	76.2
16 years	100.0	38.6	53.7	7.7	100.0	10.6	39.9	49.5	100.0	11.4	78.8	9.8
17 years	100.0	40.3	51.2	8.5	100.0	17.1	48.1	34.8	100.0	-	44.4	55.6
Standard error												
Both sexes	...	1.52	1.35	0.97	...	1.18	1.58	1.89	...	5.57	5.91	7.23
Boys	...	1.45	1.62	1.16	...	1.22	2.01	2.36	...	7.36	4.56	8.38
Girls	...	1.92	1.70	1.00	...	2.21	2.58	3.04	...	7.03	16.87	14.79

Table 27. Percent distribution of youths 12-17 years of age by level of academic performance, according to level of adjustment to school environment, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Well adjusted				Somewhat maladjusted				Seriously maladjusted			
	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class	Total	Upper 1/3 in class	Middle 1/3 in class	Lower 1/3 in class
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	33.9	45.6	20.5	100.0	4.8	25.0	70.1	100.0	3.5	14.2	82.2
12 years	100.0	35.7	45.9	18.5	100.0	5.2	28.0	66.8	100.0	7.6	7.8	84.6
13 years	100.0	36.9	44.5	18.6	100.0	5.6	26.8	67.6	100.0	-	36.9	63.1
14 years	100.0	34.2	46.1	19.7	100.0	5.3	27.8	66.9	100.0	-	-	100.0
15 years	100.0	30.8	47.5	21.7	100.0	3.7	15.2	81.1	100.0	9.5	-	90.5
16 years	100.0	32.5	45.4	22.1	100.0	6.0	22.6	71.4	100.0	-	11.7	88.3
17 years	100.0	32.7	44.4	23.0	100.0	2.9	28.9	68.2	100.0	-	34.7	65.3
Boys												
Total, 12-17 years	100.0	29.1	45.0	26.0	100.0	3.6	23.2	73.2	100.0	2.3	13.4	84.3
12 years	100.0	31.5	46.0	22.5	100.0	3.0	30.1	66.9	100.0	-	14.0	86.0
13 years	100.0	33.4	43.7	23.0	100.0	6.5	22.1	71.3	100.0	-	39.9	60.1
14 years	100.0	30.5	44.9	24.6	100.0	1.1	30.3	68.6	100.0	-	-	100.0
15 years	100.0	28.4	45.1	26.5	100.0	5.1	9.1	85.8	100.0	7.6	-	92.4
16 years	100.0	26.2	45.5	28.4	100.0	5.7	15.9	78.3	100.0	-	-	100.0
17 years	100.0	23.2	44.5	32.3	100.0	-	26.9	73.1	100.0	-	22.5	77.5
Girls												
Total, 12-17 years	100.0	38.5	46.3	15.2	100.0	6.8	27.8	65.4	100.0	6.0	15.8	78.2
12 years	100.0	39.5	45.8	14.8	100.0	9.3	24.0	66.7	100.0	17.0	-	83.0
13 years	100.0	40.2	45.3	14.5	100.0	4.1	34.2	61.7	100.0	-	29.0	71.0
14 years	100.0	37.6	47.2	15.2	100.0	12.2	23.7	64.1	100.0	-	-	100.0
15 years	100.0	33.4	50.0	16.7	100.0	2.1	22.5	75.4	100.0	13.3	-	86.7
16 years	100.0	38.7	45.4	15.9	100.0	6.4	31.7	61.9	100.0	-	21.7	78.3
17 years	100.0	41.3	44.3	14.4	100.0	7.8	32.3	59.9	100.0	-	66.4	33.6
Standard error												
Both sexes	...	1.10	0.85	1.12	...	0.66	2.31	2.38	...	1.81	4.81	5.60
Boys	...	1.31	1.38	1.24	...	0.63	2.77	2.71	...	2.19	5.74	5.66
Girls	...	1.42	0.89	1.12	...	1.25	3.73	3.86	...	4.80	10.27	10.05

Table 28. Percent distribution of youths 12-17 years of age by peer group relations, according to level of adjustment to school environment, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Well adjusted				Somewhat maladjusted				Seriously maladjusted			
	Total	Above-average popularity	Average popularity	Below-average popularity	Total	Above-average popularity	Average popularity	Below-average popularity	Total	Above-average popularity	Average popularity	Below-average popularity
All ages, both sexes	Percent distribution											
Total, 12-17 years	100.0	17.1	79.3	3.6	100.0	2.5	49.2	48.3	100.0	-	26.4	73.6
12 years	100.0	17.6	79.4	2.9	100.0	3.1	45.0	51.9	100.0	-	46.8	53.2
13 years	100.0	15.3	81.4	3.3	100.0	3.1	51.7	45.3	100.0	-	30.3	69.7
14 years	100.0	15.3	80.5	4.2	100.0	1.8	56.3	41.8	100.0	-	17.4	82.6
15 years	100.0	16.0	79.6	4.4	100.0	2.8	47.1	50.1	100.0	-	24.2	75.8
16 years	100.0	15.2	81.5	3.2	100.0	1.0	54.7	44.3	100.0	-	11.7	88.3
17 years	100.0	23.8	72.4	3.8	100.0	2.3	38.2	59.5	100.0	-	34.6	65.4
Boys												
Total, 12-17 years	100.0	14.7	82.3	2.8	100.0	2.7	53.3	44.0	100.0	-	23.3	76.7
12 years	100.0	15.7	81.9	2.4	100.0	2.4	47.9	49.7	100.0	-	14.2	85.8
13 years	100.0	12.9	84.7	2.4	100.0	5.2	55.4	39.4	100.0	-	28.2	71.8
14 years	100.0	14.6	82.5	2.9	100.0	0.8	60.0	39.2	100.0	-	22.8	77.2
15 years	100.0	15.6	82.1	2.4	100.0	3.4	52.5	44.1	100.0	-	37.4	62.6
16 years	100.0	12.4	84.5	3.1	100.0	1.9	59.4	38.6	100.0	-	-	100.0
17 years	100.0	18.6	77.5	3.9	100.0	2.2	43.7	54.1	100.0	-	-	100.0
Girls												
Total, 12-17 years	100.0	19.3	76.4	4.3	100.0	2.0	42.9	55.0	100.0	-	32.0	68.0
12 years	100.0	19.5	77.2	3.3	100.0	4.4	39.4	56.2	100.0	-	100.0	-
13 years	100.0	17.5	78.4	4.0	100.0	-	46.3	53.7	100.0	-	37.5	62.5
14 years	100.0	16.0	78.7	5.4	100.0	3.8	49.4	46.8	100.0	-	-	100.0
15 years	100.0	16.5	76.9	6.6	100.0	2.2	40.7	57.1	100.0	-	-	100.0
16 years	100.0	18.0	78.6	3.4	100.0	-	49.0	51.0	100.0	-	21.7	78.3
17 years	100.0	28.6	67.8	3.6	100.0	2.5	29.6	67.9	100.0	-	77.6	22.4
Standard error												
Both sexes	...	0.97	0.99	0.49	...	0.48	2.15	2.25	...	...	7.15	7.15
Boys	...	1.03	1.20	0.65	...	0.69	2.27	2.21	...	...	6.79	6.79
Girls	...	1.19	1.20	0.58	...	0.87	4.06	3.80	...	...	13.58	13.58

Table 29. Percent distribution of youths 12-17 years of age by frequency of disciplinary action, according to level of adjustment to school environment, age, and sex, and standard error of percent by sex: United States, 1966-70

Age and sex	Well adjusted				Somewhat maladjusted				Seriously maladjusted			
	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined	Total	Never disciplined	Occasionally disciplined	Frequently disciplined
	Percent distribution											
All ages, both sexes												
Total, 12-17 years	100.0	80.3	19.1	0.6	100.0	31.4	53.3	15.3	100.0	22.8	22.8	54.4
12 years	100.0	75.1	23.5	1.3	100.0	30.8	54.0	15.2	100.0	20.8	28.4	50.8
13 years	100.0	77.2	22.7	0.1	100.0	35.8	47.6	16.6	100.0	8.7	16.7	74.6
14 years	100.0	77.3	22.2	0.5	100.0	23.3	61.5	15.3	100.0	29.6	7.6	62.8
15 years	100.0	83.3	16.0	0.7	100.0	38.0	47.2	14.8	100.0	18.5	41.8	39.7
16 years	100.0	85.1	14.4	0.6	100.0	29.5	56.8	13.7	100.0	58.4	6.5	35.2
17 years	100.0	85.3	14.1	0.7	100.0	30.8	53.6	15.6	100.0	16.2	6.2	77.6
Boys												
Total, 12-17 years	100.0	72.2	27.0	0.9	100.0	23.9	56.3	19.8	100.0	10.4	27.4	62.2
12 years	100.0	65.0	32.9	2.0	100.0	23.6	56.5	20.0	100.0	13.4	29.0	57.6
13 years	100.0	69.2	30.8	-	100.0	28.3	50.1	21.6	100.0	3.9	19.7	76.4
14 years	100.0	69.9	29.1	1.0	100.0	16.0	67.1	16.8	100.0	33.2	10.6	56.2
15 years	100.0	77.9	21.3	0.7	100.0	31.9	50.5	17.6	100.0	5.2	51.7	43.1
16 years	100.0	78.3	21.0	0.7	100.0	24.2	57.1	18.7	100.0	26.8	-	73.2
17 years	100.0	73.7	25.2	1.2	100.0	20.8	54.6	24.6	100.0	-	9.8	90.2
Girls												
Total, 12-17 years	100.0	87.8	11.8	0.4	100.0	42.8	48.7	8.4	100.0	49.7	13.0	37.3
12 years	100.0	84.1	15.2	0.7	100.0	43.7	49.7	6.6	100.0	39.7	27.0	33.3
13 years	100.0	84.5	15.4	0.1	100.0	46.7	43.9	9.4	100.0	35.6	-	64.4
14 years	100.0	84.2	15.8	-	100.0	36.9	50.8	12.3	100.0	20.6	-	79.4
15 years	100.0	88.9	10.5	0.6	100.0	45.1	43.4	11.4	100.0	45.0	21.9	33.1
16 years	100.0	91.5	8.1	0.5	100.0	35.9	56.6	7.6	100.0	87.5	12.5	-
17 years	100.0	95.6	4.2	0.2	100.0	48.1	51.9	-	100.0	44.4	-	55.6
Standard error												
Both sexes	...	0.75	0.75	0.10	...	2.20	2.53	1.56	...	5.50	5.89	5.68
Boys	...	1.28	1.27	0.22	...	1.86	2.21	1.99	...	3.84	6.57	7.38
Girls	...	0.84	0.81	0.11	...	3.68	4.25	1.59	...	12.95	6.37	12.64

APPENDIX I

STATISTICAL NOTES

Survey Design

The sample design for each of the first three programs of the Health Examination Survey (Cycles I-III) has been essentially similar in that it has been a multistage, stratified probability sample of clusters of households in land-based segments. The successive elements for this sample design are primary sampling units (PSU's), census enumeration district (ED), segment (a cluster of households), household, eligible persons, and finally the sample person.

The 40 sample areas and the segments utilized in the design of Cycle III were the same as those in Cycle II. Previous reports describe in detail the sample design used for Cycle II and discuss the problems of and considerations given to other types of sampling frames and whether the selection of siblings should be controlled.[7,16]

Requirements and limitations placed on the design for Cycle III, similar to those for the design in Cycle II, were the following:

1. The target population was defined as the civilian, noninstitutional population of the United States, including Alaska and Hawaii, aged 12-17 years, with the special exclusion of children residing on reservation lands of the American Indians. The latter exclusion was adopted as a result of operational problems encountered on these lands in Cycle I.
2. The time period of data collection was limited to about 3 years, and the length of each individual examination within the specially constructed mobile examination center was between 2 and 3 hours.
3. Ancillary data were collected on specially designed household, medical history, and school questionnaires and from birth certificate copies.
4. Examination objectives were related primarily to factors of physical and intellectual growth and development.
5. The sample was sufficiently large to yield reliable findings within broad geographic regions and population density groups as well as age, sex, and limited socioeconomic groups for the total sample.

The sample was drawn jointly with the U.S. Bureau of the Census, starting with the 1960 decennial census list of addresses and the nearly 1,900 PSU's into which the entire United States was divided. Each PSU is either a standard metropolitan statistical area (SMSA), a county, or a group of two or three contiguous counties. These PSU's were grouped into 40 strata, with each stratum having an average size of about 4.5 million persons, in such a manner as to maximize the degree of homogeneity within strata with regard to the population size of the PSU's, degree of urbanization, geographic proximity, and degree of industrialization. The 40 strata were then classified into four broad geographic regions of 10 strata each; within each region, the strata were cross-classified by four population density classes and classes of rate of population change from 1950 to 1960. Using a modified Goodman-Kish controlled-selection technique, one PSU was drawn from each of the 40 strata.

Further stages of sampling within PSU's required first the selection of ED's. The ED's are small well-defined areas of about 250 housing units into which the entire Nation was divided for the 1960 population census. Each ED was assigned a "measure of size" equal to the rounded whole number resulting from a "division by nine" for the number of children, aged 5-9 years, in the ED at the time of the 1960 census. A sample of 20 ED's in the sample PSU was selected by systematic sampling with each ED having a probability of selection proportional to the population of children 5-9 years at the time of the 1960 census. A further random selection by size of segments (smaller clusters of housing units) within each ED was then made.

Because of the 3-year time interval between Cycle II and Cycle III, the Cycle III frame had to be supplemented for new construction and to compensate for segments where housing was partially or totally demolished to make room for highway construction or urban redevelopment.

Advanced planning for the examinations at the various locations or stands provided for about 17 days of examinations, which limited

the number of examinees per location to approximately 200.

In Cycle III, as in Cycle II, twins who were deleted from the sample selection were also scheduled for examination, time permitting, as were youths deleted from the Cycle III sample who had been examined in Cycle II. The sample was selected in Cycle III, as it had been for the children in Cycle II, so as to contain the correct proportion of youths from families having only one eligible youth, two eligible youths, and so on, to be representative of the total target population. However, since households were one of the elements in the sample frame, the number of related youths in the resultant sample was greater than would result from a design that sampled youths aged 12-17 years without regard to household. The resultant estimated mean measurements or rates should be unbiased; but their sampling variability will be somewhat greater than those from more costly, time-consuming, systematic sample design in which every kth youth would be selected.

The total probability sample for Cycle III included 7,514 youths representative of the approximately 22.7 million noninstitutionalized U.S. youths aged 12-17 years. The sample contained youths from 25 different States and approximately 1,000 in each single year of age.

The response rate in Cycle III was 90 percent, with 6,768 youths examined out of the total sample. These examinees were assigned weights to make the group representative of the entire U.S. population studied with respect to age, sex, race, region, population density, and population growth in area of residence. Final sample frequency and estimated population figures are presented by age and sex in table I.

Measures used to control in general the quality of the data from these surveys have been described in previous reports.[6-8] Those additional measures specifically related to the particular examination, tests, or measurements were outlined in the analytic reports describing and presenting the respective initial findings.

Reliability

While measurement processes in the surveys were carefully standardized and closely controlled, the correspondence between true population figures and survey results cannot be expected to be exact. Survey data are imperfect for three major reasons: (1) results are subject to sampling error, (2) the actual conduct of a survey never agrees perfectly with the design, and (3) the measurement processes themselves are inexact even though standardized and controlled.

The first report on Cycle III[8] describes in detail the faithfulness with which the sampling design was carried out.

Data recorded for each sample youth were inflated in the estimation process to characterize the larger universe of which the sample youth are representative. The weights used in this

Table I. Number of youths in sample and estimated population size as of midsurvey, by age and sex: Health Examination Survey, 1966-70

Age	Both sexes	Boys	Girls	Both sexes	Boys	Girls
	Number of youths in the sample			Estimated population size as of midsurvey (in thousands)		
Total, 12-17 years	6,768	3,545	3,223	22,692	11,489	11,203
12 years	1,190	643	547	4,002	2,032	1,970
13 years	1,208	626	582	3,952	2,006	1,946
14 years	1,204	618	586	3,852	1,951	1,901
15 years	1,116	613	503	3,751	1,900	1,851
16 years	1,092	556	536	3,625	1,836	1,789
17 years	958	489	469	3,510	1,764	1,746

inflation process are a product of the reciprocal of the probability of selecting the youth, an adjustment for nonresponse cases, and a post-stratified ratio adjustment that increases precision by bringing survey results into closer alignment with known U.S. population figures by color and sex within single years of age 12-17.

In the third cycle of the Health Examination Survey (as in Cycle II) the samples were the result of three principal stages of selection—the single PSU from each stratum, the 20 segments from each sample PSU, and the sample youth from the eligible persons. The probability of selecting an individual youth is the product of the probability of selection at each stage.

Since the strata are roughly equal in population size and a nearly equal number of sample youths were examined in each of the sample PSU's, the sample design is essentially self-weighting with respect to the target population; that is, each youth 12-17 years had about the same probability of being drawn into the respective samples.

The adjustment upward for nonresponse is intended to minimize the impact of nonresponse on final estimates by imputing to nonrespondents the characteristics of "similar" respondents. Here "similar" respondents were judged to be examined youths in a sample PSU having the same age in years and sex as youths not examined in that sample PSU.

Table II. Number and percent distribution of youths in the U.S. population and percent nonresponse to the school questionnaire, by age and grade in school: United States, 1966-70

Age and grade in school	Estimated population size as of midsurvey		Both sexes	Boys	Girls
	Number in thousands	Percent distribution			
			Percent nonresponse		
All youths, 12-17 years	22,692	100.0	8.4	8.1	8.7
Age					
12 years	4,002	17.6	5.4	4.5	6.3
13 years	3,952	17.4	5.5	6.3	4.6
14 years	3,852	17.0	6.6	5.8	7.4
15 years	3,750	16.5	7.5	7.3	7.7
16 years	3,625	16.0	10.7	10.1	11.3
17 years	3,510	15.5	15.7	15.4	16.0
Grade					
5th grade or lower	327	1.4	11.0	15.4	7.4
6th grade	1,324	5.8	5.9	4.8	6.0
7th grade	3,481	15.3	5.3	5.1	5.5
8th grade	4,105	18.1	4.8	4.7	4.9
9th grade	3,620	16.0	7.9	7.8	8.0
10th grade	3,645	16.1	6.8	8.1	5.6
11th grade	2,984	13.2	5.3	4.6	6.1
12th grade	2,081	9.2	5.5	4.3	6.5
High school graduate	416	1.8	27.2	20.2	31.8
Special placement	203	0.9	1.3	1.9	-
Youths who left before completing high school[1]	507	2.2	95.0	93.3	96.5

[1] Some others who may be qualified in this category may be included elsewhere if last grade in school were reported.

The poststratified ratio adjustment used in Cycle III achieved most of the gains in precision that would have been attained if the sample had been drawn from a population stratified by age, color, and sex. In addition, the adjustment makes the final sample estimates of population agree exactly with independent controls prepared by the U.S. Bureau of the Census for the noninstitutional population as of March 9, 1968 (approximate midsurvey point for Cycle III), by color and sex for each single year of age 12-17. The weight of every responding sample youth in each of the 24 age, color, and sex classes is adjusted upwards or downwards so that the weighted total within the class equals the independent population control for the survey.

Nonresponse

Besides the sample youths who were not examined, there were some for whom the school questionnaire was not completed. They amounted to 8 percent of the population of youths being studied. Mainly, these youths for whom no school data were received by questionnaire were high school graduates or those who had otherwise discontinued attendance at particular schools.

Table II shows the extent of nonresponse by age and grade in school for the subject boys and girls. A high rate of nonresponse (95 percent) is seen for the youths who had left school prior to completing high school. With respect to direction in the nature of responses, the effect of this is somewhat offset by the nonresponse (27 percent) among the high school graduates. Note that each of these two groups accounted for about 2 percent of the adolescents studied. Data on youths for whom questionnaires were received indicate that the responses from these two groups tended to fall at opposite ends of the scale in such areas as intellectual ability, academic achievement, popularity, attendance, repeating grades, and frequency of required disciplinary actions.

A more probable source of bias relates to the underrepresentation of youths 16 and 17 years of age (13 percent nonresponse) in the summaries of responses to the questionnaire. Table III shows the nonresponse rates for the older youths according to status in school. No obvious effects of this underreporting on the reported findings have been observed, but one should consider the possibility in the interpretation of the data in this report.

With regard to the questionnaires received, there were instances in which certain items of information were not provided. For each question, this item nonresponse rate was less than 2 percent, and these unknowns were omitted in the computation of percentages.

Standard Error

In the present report, reference has been made to efforts to minimize bias and variability of measurement techniques.

The probability design of the survey makes possible the estimation of standard errors. The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation which arises in the measurement process. It does not include estimates of any biases that might be in the data. The chances are about 68 out of 100 that an estimate from the sample would differ by less than the standard error from the value obtained from an examination of all persons in the population. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than 2½ times as large.

Generally, the rates or percentages shown in the detailed tables for the entire group, for all the males, or for all the females are accompanied by their respective standard errors. In the interest of simplicity and brevity, specific standard errors for each estimate for youths by single year of age are not presented; however, an approximate standard error for each can be estimated from the curves in figure I.

The curve labeled 4.0 (millions) provides estimates of standard errors for percentages (or rates) cited for all the youths (males and females) in a single year of age group—e.g., all

Table III. Percent of youths 14-17 years and percent nonresponse to school questionnaire, by status in school, age, and sex: Health Examination Survey, 1966-70

Age and sex	Status in school		Status in school	
	High school graduate	Youths who left school	High school graduate	Youths who left school
	Percent of youths in age group		Percent nonresponse	
14 years	-	0.6	...	100.0
Boys	-	0.3	...	100.0
Girls	-	0.9	...	100.0
15 years	0.2	1.1	-	89.0
Boys	0.1	0.5	-	80.6
Girls	0.2	1.8	-	91.7
16 years	0.3	4.0	73.4	97.3
Boys	0.3	3.8	45.1	94.3
Girls	0.4	4.3	100.0	100.0
17 years	11.3	8.4	26.2	94.3
Boys	8.8	9.0	19.5	93.5
Girls	13.9	7.9	30.4	95.3

youths who were 12 years old. Similarly, the 2.0 curve gives estimates for either sex class in a single year of age group, e.g., 16-year-old girls.

Table IV shows population base estimates for those percentages that pertain to less than all youths in an age or sex-age class—e.g., those 14-year-old youths who had repeated grades.

Employing the information contained in table V, the following example shows how figure I and table IV may be used in conjunction with the preceding discussion to obtain estimates of standard errors for percentages based on these subpopulations.

The estimated standard error for the first subgroup (2.5) was obtained by locating the appropriate value (39.8 percent) on the horizontal scale of figure I, reading vertically on the 1.0 and 2.0 (million) curves, and interpolating for 1.7 million, using the scale to the left. The value for the error related to 14.8 percent may be read directly from the appropriate curve (0.3 million), which was located by subtraction.

An approximation of the standard error of a difference $d = x - y$ of two statistics s and y is given by the formula $(S_x^2 + S_y^2)^{1/2}$ where S_x and S_y are the standard errors, respectively, of x and y. Of course, where the two groups or measures are positively or negatively correlated, this will given an overestimate or underestimate, respectively, of the actual standard error.

Certain tests of the statistical significance of the association between responses to related questions in this report made use of Pearson's classic chi-squared test, with modifications to

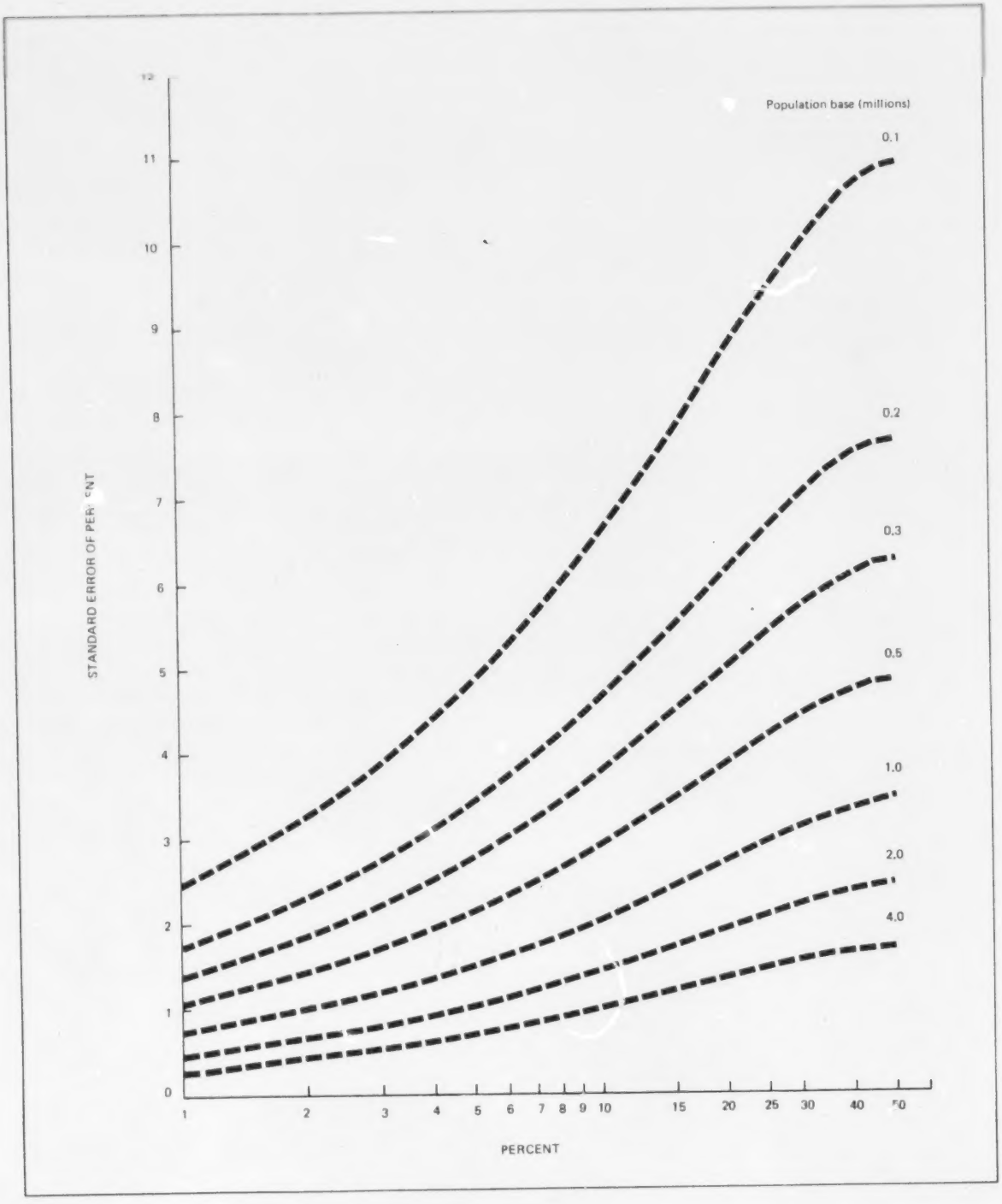

Figure I. Standard errors of percentages based on categorical data from school questionnaires for youths 12-17 years: United States, 1966-70.

Table IV. Guide to use of standard error chart

Reference table number	Topic and category	Percent of youths 12-17 years	Number of youths, 12-17 years (millions)	
			Single year of age, total	Single year of age, either sex
3	Grade progression:			
	Repeaters	15.8	0.6	0.3
10,13	Attendance:			
	Unusual number of absences	12.8	0.5	0.2
	Good attendance	87.2	3.3	1.7
14,18,22	Academic standing:			
	Upper third of class	26.2	1.0	0.5
	Middle third of class	39.5	1.5	0.8
	Lower third of class	28.9	1.1	0.5
14	Repeaters:			
	Upper third of class	0.8	[1]	[1]
	Middle third of class	3.7	0.1	0.1
	Lower third of class	9.9	0.4	0.2
15,17,21	Intellectual ability:			
	Above average	27.7	1.1	0.5
	Average	50.4	1.9	1.0
	Below average	19.5	0.7	0.4
23	Popularity:			
	Above average	12.4	0.5	0.2
	Average	64.0	2.4	1.2
	Below average	10.4	0.4	0.2
25-27	Emotional adjustment:			
	Well adjusted	76.8	2.9	1.5
	Somewhat maladjusted	14.1	0.5	0.3
	Seriously maladjusted	1.4	0.1	[1]

[1] Number in sample was too small to yield reliable standard error.

Table V. Tabulation of information relating to example of estimation of standard errors for subpopulations

Description of subcategory	Percent said to show above-average ability (tables 7 and 10)	Population base in millions (table III)	Standard error estimated from figure 1
Girls, 16 years:	34.2	2.0	2.3
Those with records of good attendance	39.8	1.7	2.5
Those with records of poor attendance	14.8	0.3	4.5

adapt the original procedure for use with the complex sample design of the survey. These adaptations, which follow an approach suggested in a previous NCHS report,[15] are explained in a previous report in this series.

Small Values

In some tables, magnitudes are shown for cells for which the sample size is so small that the sampling error may be several times as great as the statistic itself, thus indicating an unacceptable degree of unreliability in the estimate. Such rates, if shown, have been included in the belief that they may help to convey an impression of the overall story of the table.

APPENDIX II

SCHOOL QUESTIONNAIRE

All information which would permit identification of an individual or of an establishment will be held confidential, will be used only by persons engaged in and for the purpose of the survey and will be protected against disclosure in accordance with the provisions of 42 CFR Part 1.

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DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL CENTER FOR HEALTH STATISTICS
HEALTH EXAMINATION SURVEY

Form Approved:
Budget Bureau No. 68-R1700

SUPPLEMENTAL INFORMATION FROM SCHOOL

The student whose name appears below is one of the sample of students being studied in the Health Examination Survey. This student's parent or guardian has given us written authorization to obtain information from the school. Please complete this form on the basis of school records and/or information the student's teacher or other school official may have. A pre-addressed envelope, requiring no postage, is furnished for your convenience in returning this form.

NAME OF YOUTH (*Last*) (*First*) (*Middle*)

SAMPLE NUMBER

HOME ADDRESS
(*For identification*)

1. BIRTH DATE (*Month*) (*Day*) (*Year*)

2. WHAT IS THE PRESENT GRADE PLACEMENT OF THIS STUDENT? _____ grade.

3. HAVE ANY GRADES BEEN SKIPPED OR DOUBLE PROMOTIONS BEEN GIVEN?

2 ☐ NO 3 ☐ DON'T KNOW

1 ☐ YES → IF YES, Which grades were skipped? _____ _____ _____

4. HAVE ANY GRADES BEEN REPEATED FOR ANY REASON?

2 ☐ NO 3 ☐ DON'T KNOW

1 ☐ YES → IF YES, Which grades were repeated? _____ _____ _____

5. IF GRADES WERE REPEATED, WHAT WAS THE MAIN REASON?
(*Check only one*)

1 ☐ EXCESSIVE ABSENTEEISM (*excused*)
2 ☐ TRUANCY
3 ☐ MOVED INTO MORE DIFFICULT SCHOOL SYSTEM
4 ☐ SOCIAL IMMATURITY
5 ☐ ACADEMIC FAILURE
6 ☐ OTHER (*explain*) _____

6. HAS THIS STUDENT BEEN ABSENT FROM SCHOOL AN UNUSUAL NO. OF DAYS DURING THE MOST RECENTLY COMPLETED SCHOOL YEAR?

2 ☐ NO 3 ☐ DON'T KNOW

1 ☐ YES → IF YES, WHAT IS THE MAIN REASON FOR THE ABSENCES? (*Check only one*)

1 ☐ Student's illness
2 ☐ Illness in student's family
3 ☐ Due to work (*either away from home or at home for reasons other than family illness*)
4 ☐ Truancy
5 ☐ Other (*explain*) _____

7. HOW FREQUENTLY IS ANY SPECIFIC DISCIPLINARY ACTION REQUIRED FOR THIS STUDENT?

1 ☐ FREQUENTLY

2 ☐ OCCASIONALLY

3 ☐ NEVER

4 ☐ NO BASIS FOR JUDGING WHICH OF THE ABOVE FITS THIS STUDENT

8. ARE SPECIAL RESOURCES NEEDED OR CURRENTLY BEING USED FOR THIS STUDENT?

2 ☐ NO **(SKIP TO QUESTION 9)**

1 ☐ YES → IF YES, complete the following only for those special resources needed or currently being used by this youth:

SPECIAL RESOURCE	RESOURCE NEEDED (Check one)			REASON FOR NON-USE (Check primary reason)			
	BEING USED	NOT AVAILABLE	AVAILABLE BUT NOT USED	OVER-CROWDED	STUDENT OBJECTS	PARENTS OBJECT	OTHER *(specify)*
a. For the gifted							
b. For the mentally retarded							
c. For "slow learners" not classed as mentally retarded							
d. For emotionally disturbed							
e. For orthopedically handicapped							
f. Special facilities for the "hard of hearing"							
g. Special facilities for the visually handicapped							
h. Speech therapy							
i. Remedial reading							
j. English for students from non-english speaking environments							
k. Remedial training in special subject area(s)							
l. Other resources needed *(specify)*							

9. IN TERMS OF ADJUSTMENT, WHICH OF THE FOLLOWING BEST DESCRIBES THIS STUDENT?

1 ☐ SEEMS WELL ADJUSTED.

2 ☐ SEEMS SOMEWHAT MALADJUSTED.

3 ☐ SEEMS SERIOUSLY MALADJUSTED.

4 ☐ NO BASIS FOR JUDGING WHICH OF THE ABOVE FITS THIS STUDENT.

10. IN TERMS OF INTELLECTUAL ABILITY, WHICH OF THE FOLLOWING BEST DESCRIBES THIS STUDENT?

1 ☐ ABOVE AVERAGE

2 ☐ AVERAGE

3 ☐ BELOW AVERAGE

4 ☐ DON'T KNOW STUDENT WELL ENOUGH TO JUDGE.

11. IN TERMS OF ACADEMIC ACHIEVEMENT, IS THIS STUDENT:

1 ☐ IN THE UPPER THIRD OF HIS CLASS

2 ☐ IN THE MIDDLE THIRD OF HIS CLASS

3 ☐ IN THE LOWER THIRD OF HIS CLASS

4 ☐ DON'T KNOW ⟶ **IF DON'T KNOW,** *Specify reason* _____

12. IN TERMS OF POPULARITY WITH OTHER STUDENTS, IS THIS STUDENT:

1 ☐ ABOVE AVERAGE IN POPULARITY

2 ☐ ABOUT AVERAGE IN POPULARITY

3 ☐ BELOW AVERAGE IN POPULARITY

4 ☐ DON'T KNOW

13. HOW LONG HAVE YOU KNOWN THIS STUDENT?

1 ☐ LESS THAN ONE SEMESTER

2 ☐ MORE THAN ONE SEMESTER BUT LESS THAN ONE YEAR

3 ☐ MORE THAN ONE YEAR BUT LESS THAN TWO YEARS.

4 ☐ MORE THAN TWO YEARS

SIGNATURE OF PERSON COMPLETING THIS FORM

OFFICIAL TITLE	DATE FORM COMPLETED

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